THE INDUSTRIAL HERITAGE
OF
POTTSVILLE AND VICINITY
W. W. HAGERTY

[illegible]elton Meeting - 1939 - Of The
[illegible] Society Of Mechanical Engineers
[illegible] Anthra[illegible]-Lehigh Society

VOLUME ONE
Front Axle - Steering Gear
Rear Axle - Propeller Shaft
All Models

PREFACE

Since this painstaking account of our region' budding industries will be consulted in the future by local students and historians, it seemed that this INDUSTRIAL HERITAGE OF POTTSVILLE AND ITS VICINITY should be prefaced, for their benefit, by something of the man who wrote it and for his credentials as its author.

Both his daughter, Mrs. Paul Kendig of the State University Campus and his widow, Mrs. W. W. Hagerty of Ashland, Pa., have contributed this biographical sketch:

"Walter William Hagerty was born in Brookland, N, Y, July 19, 1879 and died in Pottsville May 31, 1949. He was married to the former Adelaide J. Young of Ashland. They were the parents of one daughter, Adelaide.

"Walter Hagerty was educated at Stevens Institute of Technology across the Hud Hudson from New York City, in Hoboken, N.J., where he was graduated with a degree in Mechanical Engineering. He was employed as an Engineer at Roster & Haschlocker Chemical Company, Perth Amboy, N.Y., and later at the Philadelphia & Reading Coal and Iron Company of Pottsville, to which he came in 1909.

"Mr. Hagerty was a Life Member of the American Association of Mechanical Engineers. He was a member of the Sons of the American Revolution, Odd Fellows, Knights of Malta and a member of the Consistory body of New York City. He was a member of the first Presbyterian Church of Pottsville, where he served for many years as the Supertendent of Sunday School. At the time of his death he was an elder there.

" Walter Hagerty was interested in many things. He collected Commemoration stamps and was most interested in Geneology and a member of the Geneology Society of England, as well as America."

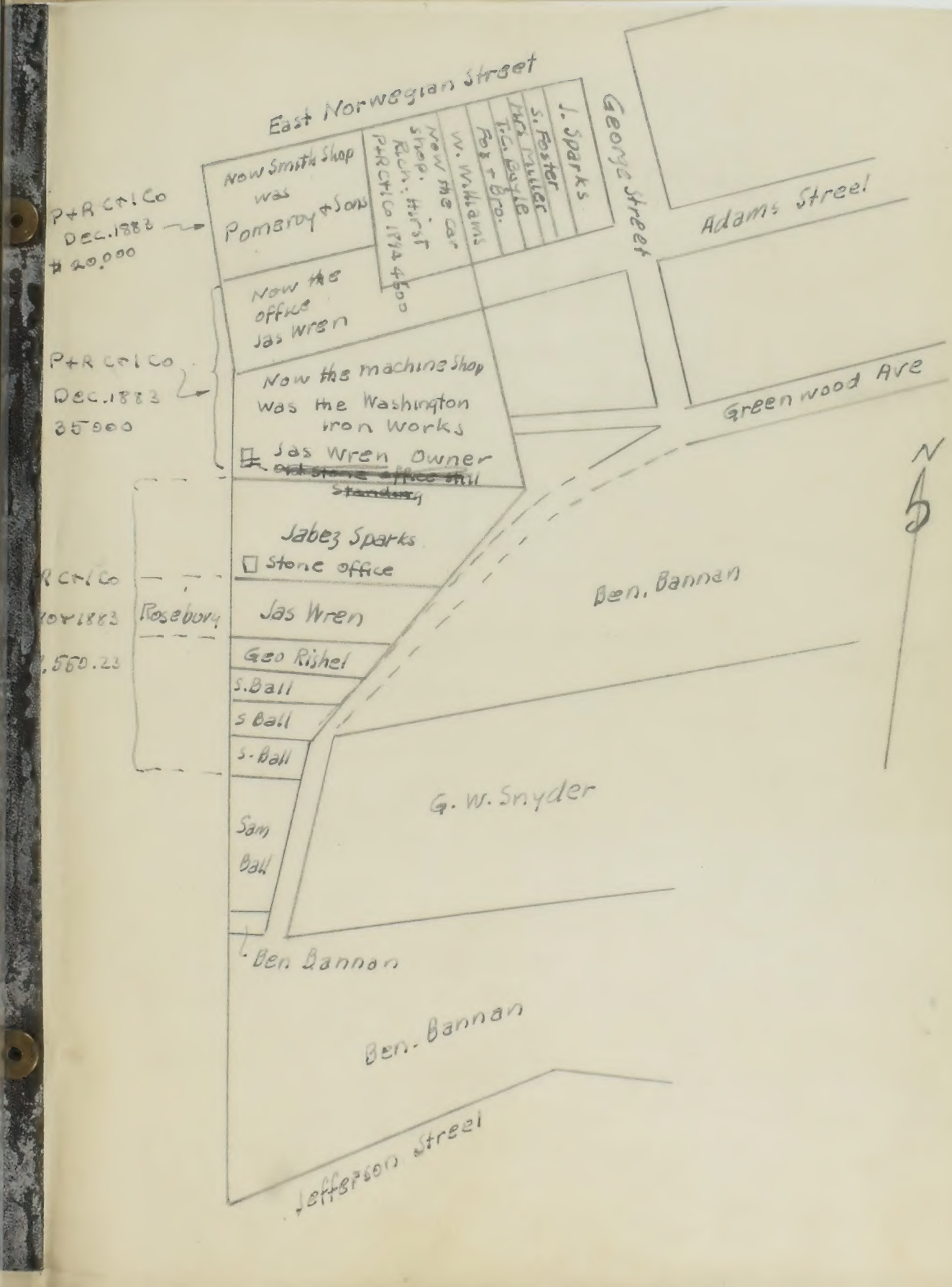
Mr.Leslie Lamont,retired now,but with the "Coal and Iron" in positionas of trust for many years,gives Mr.Hagerty's position as Designing-engineer-draftsman. After the"old Shops" closed down Mr, Mr.Hagerty was tranferred from his quarters there to the one headed by M.Lamont,and it was his sad duty the day he (Mr.H.) was/stricken fatally at work to take him home in his car. Mr.Lamont cites this to show the quality of the man,who would not let his two fellow workers go any further than the door. That was to keep his wife from being frightened by seeing two people having to help him in.

We may add that he was a good friend and a discriminating ~~friend~~ user of the Pottsville Free Public Library to which he generously gave this manuscript copy of his speech as delivered before the American Society of Mechanical Engineers -- Anthracite Lehigh Chapter, at Hazelton,Pennsylvania,in 1939.

Edith Patterson Ex-Librarian

Pottsville Free Public Library.

September 2,1964.


East Norwegian Street
Now Smith Shop was Pomeroy & Son
P & R Ct. Co Dec. 1882 # 20,000
Now the office Jas Wren
P & R Ct. Co Dec. 1883 35000
Now the machine Shop Was the Washington iron Works
Jas Wren Owner
Jabez Sparks
Stone office
Jas Wren
Geo Rishel
S. Ball
S Ball
S. Ball
Sam Ball
Ben Bannan
Ben. Bannan
Jefferson Street
Roseberry
R Ct. Co
Nov 1883
1,560.23
W. Williams
Fox & Bro.
S. Foster
J. Sparks
Georges Street
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Ben. Bannan
G. W. Snyder
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East Norwegian Street
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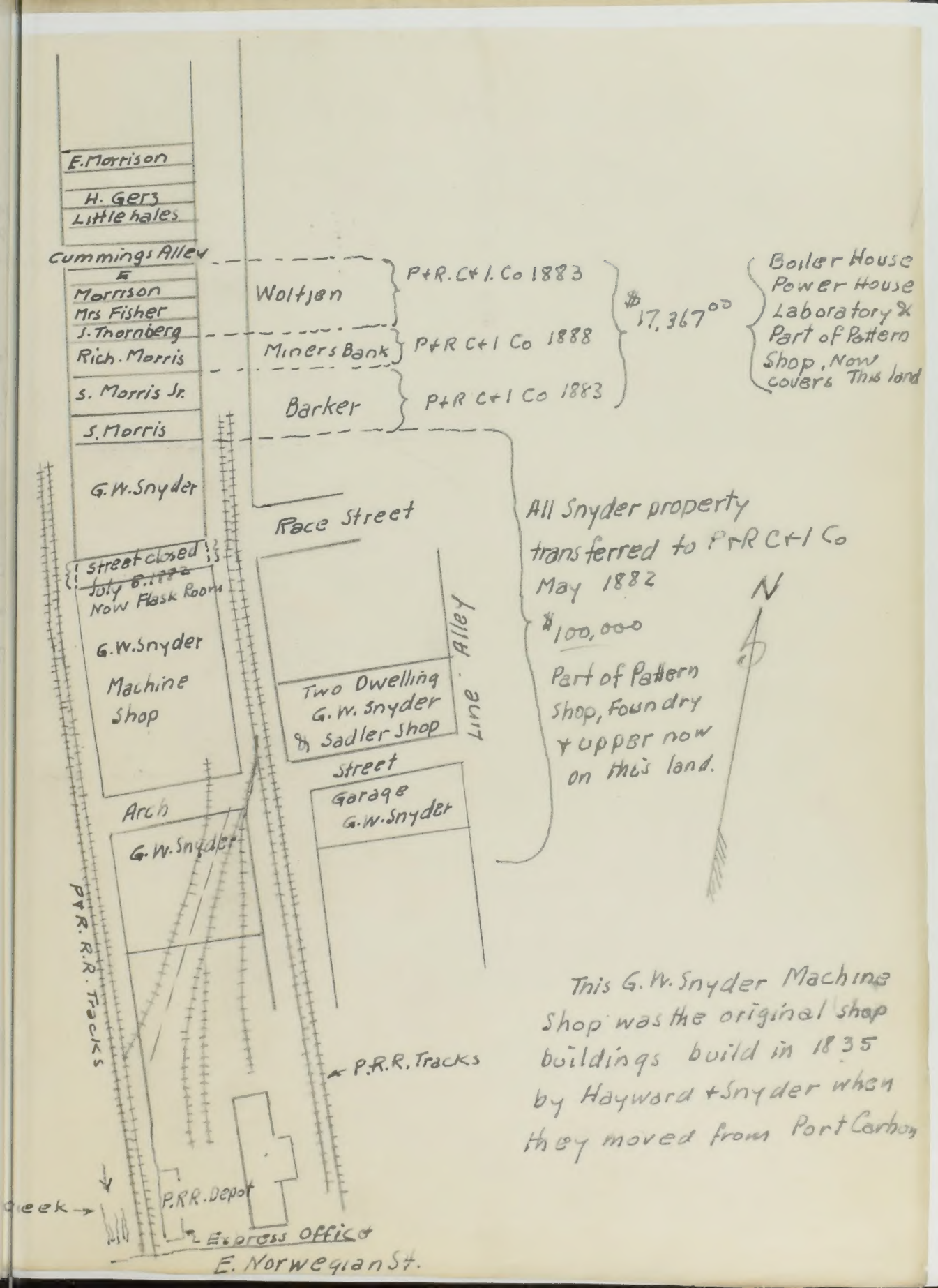

This G. W. Snyder Machine Shop was the original shop buildings build in 1835 by Hayward + Snyder when they moved from Port Carbon

Boiler House
Power House
Laboratory &
Part of Platers
Shop, Now
covers This land
17,317 sq
P&R.C&I.Co 1883
P&R.C&I.Co 1888
P&R.C&I.Co 1883
Worthen
Miners Bank
Barker
Municipal Alley
E. Morrison
H. Geers
Little Mabel
Morrison
Mrs Fisher
S. Thornberg
Rich. Morris
S. Morris Jr.
S. Morris
E.W. Snyder
Race Street
Street closed
July 8, 1888
Now Part of
E.W. Snyder
Machine
Shop
Two Dwelling
E.W. Snyder
& Sadler Shop
Alley
Street
Garage
E.W. Snyder
Arch
E.W. Snyder
All Snyder property
transferred to P&R C&I Co
May 1882
$100,000
Part of Platers
Shop, Foundry
& Upper room
on This land.
N
P.R.R. Tracks
P.R.R. Depot
Express Office
E. Normandian St.
This E.W. Snyder Machine
Shop was the original shop
building, built in 1835
by Hayward & Snyder when
they moved from Portsmouth

THE INDUSTRIAL HERITAGE OF POTTSVILLE AND VICINITY

Mr. Chairman, members of the Anthracite-Lehigh Section of the American Society of Mechanical Engineers and guests. It is with considerable diffidence that I attempt to present a resume of the industrial life of Pottsville and vicinity. I am keenly aware of the broad scope of the subject, which is boundless and almost beyond the hope of perfect completion. Past events are buried in obscure and misleading historical records or forever hidden in the brests of the early pioneers long since dead. From the personal of several early histories, old newspapers clippings and interesting interviews with some of our older residents. I have gathered a great deal of material, which I will endeavor to put together in such a fashion to give an interesting story of early happenings in the community's industry, particularly along those lines of interest to the mechanical engineer. The subjects of transportation and mining are so huge that both should be considered in separate papers.

It is about one hundred and forty years since the first pioneer penetrated into the wilderness of virgin forest that covered the area now known as Schuylkill County. It is hardly possible to realize what these years have wrought in this region to change it from wild timber land into a busy community. Scattered over the city of Pottsville and adjacent areas one may still find stately trees that are remnants of primeval forests. In most cases these old trees are guarded with jealous care by the owners of the property. Particularly is this true in Pottsville. In viewing these trees one wishes that they could speak to give us the tales of the wilderness and civilization blending together.

The first pioneers not only had to face the Indian, but his home had to be established in dense forests, full of mountains swamps cut by wild streams of water. The entire view to the pioneer was gloomy and uninviting. It is not strange to learn that the pious settlers in more comfortable surroundings South of the mountains termed the region with suspicion as heretic consigned to the devil. Undoubtedly this delayed the settling of the region. However, the fine timber and plentiful supply of game soon drew the eyes of strong ambitious men to the district.

There was no doubt many wood cutters and hunters in the region prior to 1800 endeavoring to eke out a living by cutting down fine timber along the mountain streams and floating rafts on the Schuylkill to points south of the mountains and in obtaining pelts of wild animals.

Lumbering was probably the first bid of the outside business interests. A saw mill was operated before 1800 by an individual known as Major General Balsar Gehr. There was also a saw mill at the mouth of the Norwegian Creek known as Balsar's Mill.

It is related that Henry Nieman or Negman came into the region before 1780 cleared a piece of land and erected a log cabin to house his family. This cabin was situated somewhere near the present site of the Pottsville Hospital on the south side of Mauch Chunk Street. Here on August 27, 1780 Henry Nieman and his entire family, which include three children, were massacred by Indians.

NOTES

Isaac Thomas, Lewis Morris, Lewis Reese, built the furnace and forge.

At the time of this first recorded act of violence Captain Leary of the United States marines was stationed close to the sciene of the crime, in command of a force of United States marines. He was guarding a group of lumber men, cutting down the fine tall timbers for masts for American and French navies.

The first men in the region that we might call mechanical engineers were Lewis Reese and Isaac Thomas. These men in 1795 with the families of eight or nine of their employees penetrated into the wilderness and established at what is Coal and Mauch Chunk Streets an iron furnace. Wood was used for fuel and the ore was obtained locally. Their product was pollow cast iron vessels or pots used by farmers in their open fire places. They also made parts for early wood burning stoves. These articles were sold or bartered to the farmers from the Susquehanna Valley for farm products. Their medium of exchange was generally grain and to necessitated establishing grist mills to convert the grain to flour. This furnace was operated by Reese and Thomas until 1806, when it became the property of John Potts.

This little venture of Reese and Thomas was really the beginning of Pottsville. By the year 1803 a group of log cabins to house the workers were in existence and formed the nucleus of future Pottsville. I have always felt that this community since called Pottsville should have carried the names of Reese or Thomas.

NOTES

John Pott in 1806 sent his son John Pott, Jr. and Daniel Focht to superintend the property and to erect a furnace and some houses.

In 1807 the furnace (Pott & Focht) operated by Pott, Sr. until 1828.

Mrs. Susan Pott nee Bannan, daughter of John Pott, Sr., was the first white female child born in Pottsville. She later became Mrs. Laurence F. Whitney.

John Pott was a son of a German immigrate. He had learned the iron business and evidently possessed some wealth and also business ability. We first learn of him when he came into the region in 1804. At this date he acquired the Reese and Thomas iron furnace and purchased the Physich Tract of Land on which the greater part of Pottsville and Port Carbon are located.

After he had acquired the furnace of Reese and Thomas he tore it down and erected a forge. This forge according to local historians was located at the north west corner, corner of Coal and Mauch Chunk Streets. In 1807 he erected a furnace opposite the site of his forge. It was situated on a piece of land a little south west of the present factory buildings of Phillips Jones Co. and was more or less surrounded by water or swamps. From the fact it derived the name island. Mr. Potts operated the furnace and forge until his death in 1827.

When Mr. Pott first came he had made his home at Port Carbon. In 1810 he found it more convenient to live near his business, so he removed to Pottsville. On a clearing near his on what is now Mauch Chunk Street he set out an orcherd. From this simple act the entire section received the name of "The Orchard", which it has retained down to our day.

About the time that John Pott moved to Pottsville, he erected a grist mill approximately on the site where the present Phillip and Jones Co. factory building is located. Here the workmen while excavating for the foundation exposed a seven foot vein of coal.

After the death of Mr. John Pott Sr. his son Benjamin operated the furnace for a time, and finally in 1828 he sold it to a Mr. Brookes Buckley. Mr. Buckley operated the furnace for a short time and then destroyed it. Later he established the Buckley Iron Works which operated for several years. It is related that the neighborhood of the furnace was so attractive at this time that Mr. Buckley named it Brookwood Furnace, by which it was generally known. In 1836 Messers Myers & Co. became the owners. It appears that the property came into the hands of Yardley & Co., and it was finally sold to the Atkins Brothers in 1853.

We can appreciate that pioneers like John Pott would be curious concerning the nature of the black rock which they found under the surface of the earth in such large quantities. Without a doubt they made many experiments and many interesting stories are related regarding their experiences.

David Berlin a blacksmith working at the grist mill during its erection conceived the idea of using anthracite fuel on his forge. He first made a fire of charcoal and then used anthracite. The experiment was a success and he continued to use anthracite during the erection of the mill. Many other smiths followed his example.

In a book written by William Jasper Newlls entitled "The Story of American Coals", he states that, David Berlin is claimed to have discovered the use of anthracite coal on his blacksmith forge at Valley Forge on the Schuylkill, about seventeen miles --

NOTES

Mr. Abraham Pott made many clever innovations in coal mining and handling coal. It is claimed that he was the first to use a bottom dumping car and the wheels fixed to the axles. To him belongs the credit for the first man to make a practically successful experiment for the use of anthracite coal as a fuel to generate steam for a steam engine.

In 1825 Abraham Pott built a saw mill at Black Valley driven by water from a small stream nearby. This he found insufficient and in 1829 he substituted steam power. His steam engine was the first one ever installed in Schuylkill County. He applied for bids from several engine builders and Prosper Martin of Phila. gave him the best price. The engine was placed in operation in the fall of 1829. It was 10 P. 14" bore 4 ft stroke. It is related that Mr. Pott felt he could develope 60P with proper steam.

It is also claimed that Abraham Potts was the first man to build a railroad in Schuylkill County if not in the United States. In 1826-27 he built a railroad a half a mile long extending from the junction of Mill Creek and Schuylkill River to a point in Black Valley. On this road one horse pulled 13 cars each loaded with 1 1/2 tons of coal.

... the death of Mr. John Pott Sr. his son Benjamin ... the furnace for a time, and finally in 1859 he sold it ... Brooke Bentley. Mr. Bentley operated the furnace for a ... time and then destroyed it. Later he established the Bentley Iron Works which operated for several years. It is related that ... method of the furnace was so attractive at this time that ... named it Greenwood Furnace, by which it was generally known ... Greene Myers & Co. became the owners. It remains that the ... ... into the hands of Yardley & Co., and is a family ... to the attractions in 1884.

We can appreciate that pioneers like John Pott would become concerning the nature of the black rock which they found ... surface of the earth in such large quantities. Although they made many experiments and many interesting stories ... told regarding their experiences.

David Ferlin a blacksmith worked at the quiet mill during ... conceived the idea of using anthracite coal on the ... He first made a fire of charcoal and then used anthracite. ... experiment was a success and he continued to use anthracite ... the erection of the mill. Many other smiths followed his ... example.

In a book written by William J. Buck entitled "The ... of Northampton County", he states that David Ferlin is credited ... having discovered the use of anthracite coal on his blacksmith ... at Yardley "Days on the Delaware", about seventeen miles --

Mr. Armstrong Pott made many clever inventions in coal ... by the Lehigh Coal. It is claimed that he was the first to ... bottom dumping car and the wheels fixed to the axles. He ... is also the credit for the first man to make a practical ... of anthracite for the use of burning coke as a fuel ... made steam for a steam engine.

In 1811 Abraham Pott built a saw mill at Woods Valley ... by water from a small stream nearby. This he found impossible ... in 1819 he erected steam power. The plant ... was the first one ever installed in Northampton County. ... Pott's Mills from several engineers and frequently ... Mills. Here the first paper. The engine was ... in the mill of 1819. It was 16 P. H.P. ... It is related that Mr. Pott built the second ...

It is also related that Benjamin Pott was the first Mr. ... to travel in Bonnybrook Township if not in the United ... It is said he built a railroad a half a mile long ... Junction of Mill Creek and Bonnybrook along ... Valley. The late road was known ... Mill ...

above Philadelphia. It is evident that Mr. Nicoll has gotten the famous camp site of the Revolutionary War mixed with a furnace which was established near New Philadelphia in 1808 and was locally known as Valley Furnace. It was originally an iron furnace using charcoal to make iron. Later, its owners Abraham [illegible] and his son, Dr. [illegible], a [illegible], married a [illegible] anthracite coal in making pig iron. It is here, no doubt, that the first attempt to make pig iron, using anthracite was successfully accomplished. It is probably that David Berlin erected a pig iron furnace as a blacksmith and that he was known as Dr. John Berl. Scheer in his History of Schuylkill County states, "Anthracite was first burned in a smith shop in 1795, and from that date until 1820 it was in an experimental state."

It is evident, from this, that anthracite was used at an early date on a blacksmith's forge and, no doubt, that David Berlin was interested. I know that there was a pioneer family by the name of Berlin who were early settlers in Northampton County and that they were blacksmiths and iron makers. The reason I am so sure of this is because I happen to be a descendant of one branch of this family.

In 1838-39 Mr. Burd Patterson erected a furnace ~~there~~. His own individual efforts at a point a little southeast of the old Greenwood furnace. Mr. William Lyman of Boston was employed to construct the furnace, and on Oct. 20, 1839 it was ready for operation. A Mr. Parry was the operator of the furnace.

Mr. Lyman was very anxious to test the practicability of using anthracite fuel for smelting purposes. His efforts were crowned with success and before the end of the year he received several complimentary testimonies regarding the quality of the iron produced by the furnace. Such concerns as Savery & Co. iron founders of Philadelphia and Messrs Moore and Stewart of Danville, Pa. showed considerable interest. From the first iron made at the furnace a special gift of an iron service set was prepared by Savery & Co. for the proprietor, Mr. Burd Patterson.

Mr. Nicholas Biddle, Philadelphia banker and Col. John Paxton of Catawissia were greatly interested in the experiments at both Valley Furnace and Pottsville Furnace and gave the owners a great deal of encouragement. About this time, Mr. Biddle offered a premium of $1000 for the first ton of anthracite pig iron to be made. Other interested individuals also contributed and increased the size of the prize.

On January 23, 1840 a committee of business men and Manufacturers from various parts of the state came to Pottsville to investigate and report on the working of the Pottsville Furnace. On January 24, 1840 they visited a local colliery and the furnace. On the evening of January 24th this group of men with local representatives met at the famous old Mansion House. Here they set down to a dinner, after which Mr. Biddle's premium, which by now, had increased to $5000, was presented to Mr. Lyman for making the first ton of anthracite pig iron using hot blast.

The committee that come to investigate the furnace were:

Nicholas Biddle	Thomas Biddle
Isaac Lea	Jesse Richards
J. M. Sanderson	Dr. Ben Kugler

At this meeting at the Mansion House there were about 80 guests [illegible] furnace "Pioneer Furnace".

In his speech of acceptance Mr. Lyman gave a very interesting account of his work at the furnace and gave Dr. Geisenheimer and Abraham Potts credit for their efforts at Valley Furnace. While Dr. Geisenheimer and Abraham Potts did not succeed in making the results of their labors a commercial success, yet to these two men must really be given the credit of first producing anthracite pig iron by the use of hot blast.

Mr. Lyman sold his interests to Wm. H. Marshall & Co. In October 1840 this company operated the furnace under the supervision of Mr. Charles Henderson. After operating the furnace for a time Marshall & Co., let the furnace stand idle. In 1845 Dr. G. G. Palmer rented the property. On may 23, 1845 he put the furnace in operation. Mr. Thomas Davis a native of Wales was in charge. He obtained on the first run over two ton of good grey iron.

Later a Mr. Thomas Richard of Berks County operated the furnace with Mr. Frederic Patterson as a partner.

The old Greenwood Furnace which became the property of Yardley and Co. was sold by the Sheriff in 1853 to the Atkins Brothers. A record was found of a Mr. Russel who rented the old foundry on the island to Noble Brothers to be used as a boiler shop. This was between 1852-1854. This evidently was the old Pioneer Furnace which was acquired by the Atkins Brothers in 1853.

It is interesting to learn that these early operators of these furnaces obtained the iron ore locally. It was found in the vicinity of St Clair, this ore being 33% to 36% pure iron with viens 8" to 20" thick. Ore was found on what is now known as Guinea Hill now part of Pottsville. The owners and operators of Valley Furnace also found iron in vicinity of the furnace.

The old "Pioneer Furnace" was ten foot across the boshes and 34 foot high. The necessary blowing machinery was driven by a 60 HP steam engine. The steam engine as well as blowing machinery were made in the machine shops of Hayward and Snyder at Pottsville

Around this period a Mr. Zaceur P. Boyer started a rolling mill at Port Carbon, which was called the Port Carbon Rolling Mills. For some reason he got into trouble with the Reading R.R. and finally ceded the property to them. This property was purchased by the Atkins Brothers in 1879. After they purchased the property they made many improvements and rebuilt the furnace. In 1885 they built a second furnace and in 1872 they completed a third furnace.

ing Mills in 1852. The plant was operated under the name of [illegible] & Co., with [illegible] associated with him by this venture. By 1865 the John Fritz Co. was formed to sell out. The Atkins Brothers purchased the plant.

In 1876 they erected a machine shop at the rolling mills that employed 200 men. Later in 1879 they made further improvements.

In 1872 the Atkins Brothers formed the Pottsville Iron and Steel Co., which purchased the old Pioneer and Greenwood Furnaces on the island. The Port Carbon Rolling Mills and the Fishbach Rolling Mills. Mr. Charles Atkins held 9/10 of the stock and other members of family the other 1/10. At one time this company had 5000 employees on their payroll. Evidently it met with success. Accordingly to an item in a local paper for 1881 to quote "For eleven years the Fishback Rolling Mills has not been idle for a day." It is owned and operated by the Pottsville Iron and Steel Co., which also operates the Pioneer Furnace and Port Carbon Rolling Mills." The old Pioneer Furnace at this date employed 250 men with an annual consumption of [illegible] tons of anthracite coal, 44,000 tons of limestone and 70,000 tons of iron ore. This company operated these properties up to 1902.

I wish to draw your attention to the fact the Pottsville Iron and Steel Co. were also pioneers in publishing a steel hand book which has become so important to engineers.

This is a copy of the old book which I prize. On the first page we find this wording:

Hand Book

For
Engineers, Architects and Other Workers

in
Iron and Steel

containing
Tables of capacity of I beams and channels of
iron and steel
as manufactured by the
Pottsville Iron & Steel Co.,
of Pottsville, Pa.

also
Design and calculation
of
Iron and Steel Floors, plate girders etc. and other
information of Service to workers in iron

by

J. C. Bland
Member of American Society of Civil Engineers
1887.

...ham Armish or ...enish established the Flemmock Boil-
... & Co., A ... Carnes ...
... 1904 the John Swanson Co. was formed to sell out.
... there purchased the plant.

... Lytle ...

... Co., which succeeded the old Pioneer and Glendale Furnace
... Lytle. The first Cerbon Boiling Mills and the Pioneer
... Lytle. Mr. Charles Myrtle Reid E\IC of the stock and other
... or Tuatly the other I\IC. At one time this company had
... employees on their payroll. Eventually it met with success.
... ly to an item in a local paper for 1881 to quote "Mor-
... were the Pioneer Rolling Mills has not been idle for a
... ."

... Works also operates the Pioneer Furnace and Port Carbon Rolle-
... is." The old Pioneer Furnace at this date employed two men
... an annual consumption of 80,000 tons of anthracite coal, 80,000
... the properties up to 1902.

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of Pottsville, Pa.

...
and colonization
of
Iron and Steel Floors, plate girder etc. and other
information of service to workers in Iron

by

I. C. Allen

member of American Society of Civil Engineers
1902.

Hand Book - cont'd

Printed by
J. B. Lippincott Company,
Philadelphia
Copyrighted 1887. The Pottsville Iron and Steel Co.

The officers and other officials given in this handbook are as follows:

C. M. Atkins	President
William Atkins	Treasurer
John M. Calker	Secretary

William Atkins	General Manager
William Brazier	Superintendent of Rolling Mills
Wm. H. Knowlton	Chief Engineer
John Simmons	Master Mechanic.

The book contains 310 pages well printed, and bound in leather. I believe it is one of the earliest, if not the first, of this type of books produced by steel manufacturers for the trade.

In 1902 a group of New York capitalists became interested and purchased these properties. They organized a company that was to be known as The Eastern Steel Company. The company made some improvements at the Fishback Mill and operated it for some 25 years, employing nearly 2000 men. The other mills seemed to vanish away. In 1929 the Eastern Steel Company was purchased by the Bethlehen Steel Company and the entire plant was demolished. Nothing remains of this historic and once busy place, but desolation and bitterness toward the Bethlehem Steel Company.

In the early life of Pottsville, like every other new mining town, there was a great demand for skilled mechanics. Soon many story pioneering characters came into the region and blended their lives with others into the growth of the town. Many of Pottsvill's present citizens can point with pride that their ancestors were puddlers in the rolling mills or worked in the early machine shops or boiler works. From the very beginning it appears that Pottsville existences was dependent on coal mining and manufacturing rather than an agricultural pursuits.

The lives of many of these early characters are real epics in American industrial life and their career are not without romance. I will relate one story of a poor immigrant who became a successful business man and a force in the community, as well as a national personality.

In 1829 a young Englishman, a blacksmith by trade, and bearing the name of Benjamin Hayward entered the City of Philadelphia as an immigrant. He had come to seek his fortune in the new world and things were not rosy for him. He was pretty well discouraged when he met a Mr. Rhein of Reading who befriended him and asked him to visit him at his home at Reading. Sometime later he made his appearance at the home of his friend. How he reached Reading we do not know, but we imagine he owned a pretty pair of shank's mare and walking thru that beautiful part of Pennsylvania was a pleasure.

Notes:

Ben Hayward purchased an engine in 1832 from Rush and Muklenberg. It was 4" bore 16" stroke 4 Horsepower.

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by Mr. Rhein, but by several daughters. One of these young ladies advised the young blacksmith to go up into Pottsville, where they needed skilled mechanics. Advise coming from a young woman is generally accepted by any young man, and Benjamin Hayward was no [illegible]. this period Port Carbon seems to have been the center of business activities. He reached Port Carbon in 1830 and established himself as a blacksmith. He soon had a flourishing business. During the following year he returned to Reading and married one of the daughters. This was in 1831. He returned to Port Carbon with his bride and continued in his business. In 1833 it became evident to him that an order to give his customers the service they demanded and needed he would have to obtain more equipment. He went to Philadelphia and purchsed some machinery and necessary equipment for his shop. Among this equipment was a small steam engine. This was not the first steam engine purchased for the region. Abraham Potts had a steam installed at Valley Furnace which is generally considered to be the first.

The builders of the steam engine which Benjamin Hayward purchased decided to send a young man by the name of Geo. V. Snyder to Port Carbon to erect this engine.

Mr. Snyder liked the place so well that he decided to stay with Mr. Hayward in his employ. Shortly afterwards they formed a partnership, known as the Hayward and Snyder Company.

In 1835 the infant firm moved to Pottsville and established themselves on Arch Street between Railroad and Coal Streets, ex-

Notes

In 1835 Hayward and Snyder built the first steam engine made in Pottsville. It was for the North American Coal Co. It had a 12" bore and a four (4) foot stroke.

tending northward to a point near Minersville Street. The shops became known at this date as the Colliery Iron Co.

The buildings for their shop were of brick and I believe they are the ones used by Phila. and Reading, Coal and Iron Co. for many years as iron and brass foundry and Pattern Shop. They are now part of the Pottsville Castings and Machine Co.

Here the firm grew and became known all over the region for the fine class of work turned out. Steam engines seemed to have been their specialty.

In 1842 there was 30 steam engines in Schuylkill County totalling 1000 horsepower. Twenty-two of these engines were built within the County and mainly at the Colliery Iron Works.

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In 1838-39 as previously noted, built the blowing machinery for the famous Pioneer Furnace.

In 1845 they erected at Danville, Pa. a large foundry and machine shop. There and at Pottsville they built the machinery for the Montour Rolling Mills. The first rolls for turning out tea rails in United States were made in these Danville Shops. The Montour Rolling Mills were erected under supervision of Mr. Henry Brevoort of New York City.

Later the Colliery Iron Works furnished machinery for Phoenixville Iron Co. at Phoenixville. They also built the machinery for Peter Cooper plant at Trenton, N. J. and Bevan Humphries at Allentown.

When gold was discovered in California, Hayward's pioneering spirit was again stirred and he decided to go to the Pacific coast. He disposed of his interests in the Colliery Iron Works to his partner in the coal business Mr. Benjamin Miles. With the best wishes of the community to set out for the golden west. We will leave Mr. Hayward for a short time returning to his career later.

The Colliery Iron Works continued to operate under the firm of Snyder and Miles. In 1854 the partnership was dissolved and henceforth Geo. W. Snyder was the sole proprietor. In 1881 the Geo. W. Snyder Co. was chartered.

In July 1, 1865 a young man by the name of Stephen Betts Whiting a native of Reading Ridge Conn. became superintendent of Colliery Iron Works. His inventive ability and keen judgment in matters pertaining to mechanical engineering as efficient designing and correct methods of production soon drew the attention of the coal mining men of the region to him.

He designed the so called "Whiting System" of rope drive used on hoists and haulage systems. The first installation was at Solmon's Gap Wilkes-Barre on Lehigh and Wilkes-Barre planes. At a later date was adopted for Mahanoy Plane of Phila. and Reading R.R. The system was used on the old Brooklyn Bridge when the passenger cars were operated by cable. Also the Red Jacket or Whiting Shaft of the Calumet & Hecla Mining Company. A number of diamond mines in South Africa also use this system.

In 1871 the Philadelphia and Reading Coal and Iron Co. Was organized and chartered. Mr. Franklin B. Gowan was the first president On September 1, 1878 Mr. S. B. Whiting entered the employe of the Phila and Reading, Coal and Iron Co. as mechanical engineer. On April 1, 1880 he was made chief engineer, and on March 1, 1883 he was promoted to the position of General Manager, which he held for five years. He then entered the employee of Calumet & Hecla Mining Company.

dent of the Colliery Iron Works, when he entered the employ of Calument & Hecla Company he was 54 years old. So you can see that the best portion of youth and middle life, the most efficient years, were spent in Pottsville. The years he spent in designing and constructing coal mining machinery which established for him a high reputation among contemporary coal mining engineers.

Feb. 17, 1948

I want to draw your attention to a very interesting fact in the development of coal preparation equipment. For years the company had used primitive screens for sizing and cleaning coal. But many years ago Mr. Wirt Davis, now living on Lord Fairfax Street, Fairfax, first constructed the forerunner of our modern shaking screens and is now living. He credit in the coal preparation development means too much to coal preparation. I mean, this first screen was constructed at Fort Clear Ridge Mining.

I now want to tell that our Miss [illegible] this experience in most interesting manner. And those interested readers should make an effort to [illegible] to [illegible] to [illegible] development of [illegible] mechanical [illegible] and skill

Walter W. Hyatt.

Mr. Whiting was a charter member of the A.S.M.E. and served as a Manager from April 1880 to November 1881. He was the President 1882-1883. He was also a member of the American Society of Naval Engineers and the American Institute of Mining Engineers. He died at his home in Cambridge, Mass. on December 23, 1915 at the age of 81.

Some years after the Phila. and Reading Coal & Iron Company, was organized, it became evident to the officials of the Company, that a machine shop to build and repair equipment used at the mines was necessary. They purchased the Wm. T. Snyder works at Pottsville, Penn. It is probable that they had some kind of an agreement with the Snyder Co. previous to this date. After this purchase it was clear that their shops were not large enough for amount of work they had in view for the development of the properties.

In view of these plans and requirements they purchased several smaller individual shops in the neighborhood of the Wm. T. Snyder Co. Shops, viz:

The B. W. Pomeroy & Son, Shop corner Coal and E. Norwegian Streets.

Pennington Iron Works (Wm. Brothers) on Coal Street, South of Pomeroy Shop.

Parker, Sparks & Co. Boiler works on Coal Street about mid way between Norwegian Street and Washington Streets.

They must have been acquired between the year 1880-1883

This aggregate of machine shops and boiler shops was the beginning of the famous "Pottsville Shops" of Philadelphia & Reading Coal and Iron Company that we have known for these many years.

In the early seventies a young man by the name of E.F.C. Davis was employed by the Atkin Boiling Mills as a draftsman. This young man was a native of Chesterfield, Virginia (August 17, 1844) He graduated from Washington College at Maryland in 1861, after working for Atkin Bros. for some time, he entered the employ of Geo. W. Snyder (Colliery Iron Works). On March 1878 he became Principal Draftsman for the Phila. and Reading Coal & Iron Co. and in 1880 he became superintendent of their newly organized shops. He served as superintendent until 1891. Later he was connected with C. W. Hunt & Co., Staten Island, N. Y. and the Richmond Locomotive Works.

Mr. Davis became a member of the A.S.M.E. in September 1881. He served in various subordinate offices. In December 1894 he was elected president of the American Society of Mechanical Engineers. He was killed in Central Park, N. Y. by a fall from his horse on August 6, 1895 at the age of 46.

Some of the old drawings that Mr. Whiting and Mr. Davies made or supervised in the course of design are still to be found in the present premises of the Reading Foundries and Machine Company. They certainly should be persevered.

Mr. John Wood succeeded Mr. Davies in 1891. Mr. Wood was a native of Scotland and came to America as a young man. He found his way to Pottsville where he became an employee of the Phila. and Reading Coal & Iron Co. in their engineering department. He became superintendent in 1891 and held that position continuously until his death on July 7, 1910. While he was primarily responsible

as superintendent of the shops, his official title was General Manager of Shops and Machinery.

Mr. Francis Critz was appointed to succeed Mr. Wood on July 15, 1919 and he served until his death on December 10, 1920. Mr. Critz was a pattern maker by trade and later entered the drawing office were he advanced to Chief Draftsman and then Assistant Superintendent.

Mr, Thomas Smith succeeded Mr. Critz. He was appointed December 20, 1920 and continued in that position until April 1, 1924, where he resigned. Mr. Smith had spent many years in the drafting office of the shops, working on car handling mechanisms.

Mr. John G. Reid was appointed to succeed Mr. Smith on April 1, 1924 and he continued in this position until January 1, 1929 when they ceased to function as part of the Phila. and Reading Coal and Iron Company.

Mr. John G. Reid Sr. had been with the Shops for many years. He learned the machinist trade and later entered the drafting office. He became Chief Draftsman and served in that capacity until July 15, 1919, when he became assistant to Mr. Frank Critz.

These old combined shops that have been known as the "Pottsville Shops" have in the passed years done some very fine work in the field of mechanical engineering to say nothing of the developments of skilled men who have established fine reputation where ever they went by their ability.

In the early life of the old collieries iron Works, a 70 horsepower single engine was the limit of their production. By the year 1861 they had advanced to the double winding type engine with horsepowers of 200 and 300. It was in 1870 that the Colliery Iron Works, built the first hoisting engine for Gen. S. Port at Yorks Farm Colliery. In 1864 they built the largest ones to that date for the Union Canal's, Lebanon Water Works. From 1-91 engines, boilers and pumps were demanded by colliery engineers. They also reached great sizes as 24" x 48" x 60" and 42"x [illegible]". Some had plate drum of cast iron some cylindrical cast iron drum. Most of the drums were cylindrical cast iron spiders with wood loggings.

In 1909-1910 the shops greatest efforts in hoisting engines was reached when they designed and built a pair of 54" x 60" engines for the Lehanoy Plane at Frackville, Pa. These engines were designed under the supervision of Mr. John Wood. It is safe to state here that Mr. John G. Reid, Jr. had a great deal to do with these engines in the original work and design.

The large pot or plunger type pumps have disappeared and in recent years a complete line of centrifugal pumps were designed and built at the shops.

Besides these types of equipment other classes of machinery needed at the collieries were originally designed and built at the shops viz: steel cages, car tracks or skips, steel head frames, shaft tanks, boilers (H.R.T. type) car handling mechanisims mine

Pottsville Shops Ex-Head Feted

William H. Lesser, head man at Pottsville's Shops for many years, was honored with a certificate of distinguished service by the National Council of State Boards of Engineer Examiners, at the Council's 43rd annual convention in Philadelphia, recently.

A Lehigh graduate, prominent in the social life of this city, Mr. Lesser was considered a fixture here until the Shops were dismantled.

He served as a consultant to the U. S. Bureau of Mines in planning two drainage tunnels from anthracite mines into the Susquehanna River, a project which may eventually be taken up.

He is the author of many pamphlets published by professional groups, and for the scientific press.

fans, mine cars conveyor chains, coal chutes and a host of other detail equipment.

The general maintenance of collieries was also looked after at the shops which included electrically controlled apparatus.

The iron foundry produced castings weighing [illegible] and the brass foundry 3500.

So after many years of honorable and distinguished service to the anthracite coal region and particularly to the local community these historic shops ceased to exist on January 1, 1932 as a unit of the Phila. and Reading Coal and Iron Company. It was a hard blow for many men, who had spent their entire life within these shop buildings, to see them closed and the older men realized that this closing meant the laying down of their working tools forever. It was really pathetic to see these old men and middle aged men gathering up their belongings and saying good bye to the scenes of their youth, no doubt, a thousand visions flashed thru their memory. So we bid good bye to the old "POTTSVILLE SHOPS".

The public soon realized the condition and what a great lost it would be to Pottsville, so the Chamber of Commerce got busy and after several meetings a plan was drawn up. It was decided to form a local community machine shop. Financed by small subscriptions from the public. Committees went out among the people and they succeeded in raising over $1'0,.00. After several months delay, the part in Philadelphia rendered a decision allowing the P.&R.C.& I. Co. to sign the agreement. Thus the old shops under the new name, the Pottsville Castings and Machine Co., was reopened.

Mr. Herbert Weber was elected president and Dr. John F. Reid, Jr., Vice-President. Mr. Herbert Weber was connected with the Stone & Webster Engineering Corp. and later Chief Engineer Superintendent of the Phila & Reading Coal & Iron Co's power department.

Again back to the romance and Mr. Hayward. We left him in 1852 on his way to California. He had many experiences on his way to the Pacific coast and while residing there. Some of these experience were not so profitable and after several misfortunes he found himself in a tight place financially. At the age of 30 he was compelled to put on his working clothes and start all over again, at the bottom of the ladder. By his determined courage and skill he soon became a successful business man, but on the Pacific coast.

While he regained his financial strength again in California yet he longed for old friends of his youth in Pottsville, Penna. So in 1855 Mr. Hayward returned to Pottsville. He was received in great style by his old associates and former employees.

He purchased an interest in the Palo Alto Rolling Mills. The plant operated under the firm name of Hayward, Lee & Co. In 1860 he became sole owner of the Palo Alto Rolling Mills.

The Palo Alto Rolling Mills stood on the site of the old P.P. & L.Co. power house at Palo Alto. In fact the building was part of the old plant.

In 1[illegible] he assisted in the erection of the Allentown Rolling Mill and was its assistant superintendent. He also built the Lowell Iron Works at Manchester. He was appointed one of the Commissioners for regulating the Union Pacific Railroad.

In 1[illegible] our nation was passing from a peace footing to the crisis and many successful business ventures were stranded in the [illegible]. Mr. Haywood was not an exception. [illegible] conditions and he found it necessary to cut the wages of his employees [illegible] objected to [illegible] this cut in their pay and in 1[illegible] they decided to strike. Mr. Haywood told them very frankly that he had done all he could and would [illegible] if they did not accept the cut in wages and return to work he would close the [illegible]. The men refused to accept these terms. The plant was closed down, never to open its doors again. [illegible] of the nation [illegible] Haywood and Snyder decided they would accept Mr. Haywood's offer, but it was too late. Mr. Haywood was an all man now and ill. He had no desire to be engaged in business again. He lived in retirement for a few years and died in 1[illegible].

When the firm of Haywood and Snyder undertook to build the equipment for the Contour Rolling Mills in [illegible] they had a young apprentice in their employ by the name of Robert Allison. Although he was not finished with his trade of machinist, they thought so much of him, that they sent him to Danville to do some of this important work. After the completion of this [illegible] he remained with Haywood and Snyder as a journeyman [illegible]. He left Haywood & Snyder to enter the employ of Mr. [illegible] as superintendent of his machine shop.

Later he became superintendent of B. F. Pomeroy & Son's Machine Shop. [illegible] was located on the south east corner of East Hamilton Street and 2nd Avenue. He remained with this firm for [illegible] years during which time he did all the designing as well as managing of the shop.

In 1[illegible] Mr. Allison formed a partnership with Mr. F. [illegible] Parker and established the Franklin Iron Works at East Berwick. In [illegible] Mr. Allison became sole proprietor and operated the shop until 1901 whenhe retired.

Mr. Allison was responsible for all the designing and shop [illegible] of his plant. About this time compressed air was beginning to make itself felt in the business life of our land. The Franklin Iron Works turned out its compressor [illegible] and for many years, I remember that when I first came into the [illegible] air compressors were quite common. It was an [illegible] that even to-day [illegible] the pumping of one of these compressors. Mr. Allison was a man of inventive ability and made many improvements in the diamond drill. Another one of his successful [illegible] Allison Cataract Pump.

In later years he was interested in the horseless carriage as it was then called and it [illegible] he became the first owner of an automobile in Columbia County and probably one of the first in the United States. The car he owned was a "Pierce" and I understand that it is now located in the Smithsonian Institute at Washington, D. C.

In 1902 he was succeeded by his son Frank, who
[illegible] several years. We also built
the Lambert Iron & Oil Co. plant. It was destroyed by fire of the
Commencement for rebuilding was then begun.

In 1879 our attention was again drawn to coal
lands and many options [illegible] Indiana were attended to and
visits to mines. Mr. Hymers was not an exception to the general
conditions and he [illegible] to cut the wages of the em-
ployees as he wished to do or quit at all. His employees [illegible]
[illegible] out it lasted but [illegible] in 1879 they needed to return. Mr. Hay-
wood took them very kindly back and gave it for their good and
if they did not appreciate it [illegible] to work. It did not
close this event. Mr. Hymers refused to accept these terms. The mine
was closed down, never to open [illegible] again. Some of the men
[illegible] then [illegible] ... [illegible] ... [illegible] ...

Mr. Robert Allison became a member of the American Society of Mechanical Engineers on Dec. 16, 1884. It is interesting to note who his sponsors and seconders were. He was proposed by E. F. C. Davis, S. T. Whiting, and E.D. Leavitt, Jr. His seconders were E. Good and Prof. Sutton. All three men were active in the society at that time. Mr. Allison took a great interest in the Society. He was also a member of the American Institute of Mining Engineers.

Another venture in the mechanical field that meant much to Pottsville was the start of the Wren Bros. Thomas Wren a Scotsman by birth, was and learned the trade of a foundryman beyond seas and Snyder shops, between 1848 and 1850 he established himself in business at the site of the old Reading freight depot. It was known as the Eagle Foundry. In 1851 Thomas Wren and his brothers built and opened a foundry and machine shop on Coal Street about where the present large buildings of the present Pottsville Clothing and Machine Co. Shops are located. In front the old stone building below their building was the office for this firm. It is now used by the P.&R.C.&I.Co. as a blueprint room. This firm of the Wren brothers was known as the Washington Iron Works. It was operated by the Wrens until purchased by the Philadelphia Reading Coal & Iron Co. to form part of their Pottsville Shops.

In 1851 they built the rolling mill equipment for the firm of Messrs Harris, Seamish & Co. for their Fishbach plant. In 1858 they built the machinery for the Palo Alto Rolling Mills of Lee, Bright & Co.

John Y. Wren withdrew from the firm and Thomas and James Wren continued until 1864. Thomas Wren moved to Mahanoy City and established the Grant Iron Works.

In 1848 John L. Pott, son of John Pott, Sr., established at the corner of Coal and Washington Streets, a machine shop, which was known for many years as "The Crooked Iron Spoke." In later years Mr. Keeling son-in-law of John Pott Sr. became a partner and the firm was called Pott and Keeling. Fold soon acquired a competitive spirit over but it must have been a pretty lively place for we read, "That when the shops was operating full handed the firm employed 100 men and on occassions it was as high as 140 men.

There was a machine shop known as the Pottsville Iron Foundry and Machine Shop, privately owned and operated by T. W. Maginis. It must have been situated in the vicinity of Norwegian Street and Coal Street. Later Mr. S. F. Lemery acquired the property and operated a shop under the firm name of S. F. Lemery & Bro. I found that a Mr. Maginis was a superintendent of the shop at one time whether it was the same man or not I do not know. This shop was located on the site of the present Pottsville Clothing Co. Shops. The original building was frame and was destroyed by fire in 1864, the present brick building and large addition caused the company to cease operating I do not know, but I have been told by old shop men that the old building was used by the Wren Brothers as their foundry when they operated the Washington Iron Works.

It is apparent from the stories of the early life of Pottsville that this neighborhood in the vicinity of Coal and Norwegian

Streets and seen many business ventures rise and fall in the growth of Pottsville. It is evident that an effort was made to launch a real estate boom here. It failed, but produced some interesting developments.

In 1851 Daniel J. Rhoads and Geo. A. Bowman were selling land in the neighborhood of Mahanoy Street. A Mr. William W. Brick of Philadelphia purchased a piece of land at North Second and E. Norwegian Street. Here he established a parchment factory. Later a Mr. Rothermal was associated with Mr. Brick.

In 1852-54 Mr. Chas Derr became associated with this parchment business, but while interested in the parchment plant he also operated a tannery near by. This tannery was operated until 1868 when he sold it to Joseph Derr, after which date the tannery ceased to operate and there seems to be no further record of the parchment business.

In 1848 Mr. Joseph Derr established a foundry at what is now the northwest corner of East Norwegian Street and North George Street. His specialty was the casting of stoves. In 1851 his brother Simon Derr became a partner. The latter Simon Derr withdrew from the firm and built for himself a foundry at the N.W. corner of Coal and E. Norwegian Streets, on the site of present Pennsylvania R.R. depot. This venture of Joseph Derr was a failure and later the plant was used for various businesses. The Adams Express Co. being one of last to occupy the property.

Simon Derr, continued in the foundry business at the old location. He evidently possessed good business ability because he united the firm safely thru the boundary years after the Civil War, the years which wrecked almost every other concern in the region. Mr. Simon Derr enlarged his foundry and succeeded in producing a great varieties of stoves to meet buyers. These stoves were used locally and in many of the larger cities. Evidently they were a success and I have been told they led to the production of the celebrated Volcano heater patented in 1885. In 1888 the old firm was reorganized and took a new name Pottsville Stove Works, but the old name stuck to the plant and the public still called it the"Derr Foundry". Mr. Chas Derr was the last official that carried the name of Derr.

After the death of Mr. Chas Derr, the York Safe and Lock Company operated the plant mainly for the production of small parts and metal safe deposit boxes. These boxes were made for banking institutions in all parts of the world. Mr. McFarland was the local manager. After the death of Mr. McFarland the York Safe and Lock Company closed the plant and it has since been used as an automobile service station.

In October 10, 1852 John J. Noble and James Noble established a boiler works in an old building on the island, which they rented from a Mr. Wessel. There was another John Noble in Pottsville, but whether this Noble as the same party I do not know. In 1854 the Nobles erected a shop on Railroad Street opposite the old Reading freight depot. This must have been near Washington Street.

In 1857 the Nobles dissolved partnership. James Noble went to Rome, Ga. John Noble continued to operate the business, and it

Streets and seen very business ventures that led to the [illegible] of Pottsville. It is evident that an effort had been made to [illegible] a real estate boom [illegible]. It fell-l, but produced other [illegible] developments.

In 1850 [illegible] T. Brooke and Geo. S. [illegible]maker [illegible] in the neighborhood of George Street. A Mr. William K. Smith [illegible] a piece of land at North [illegible] Norwegian Street. Here he established a prominent [illegible]. Later a Mr. [illegible] was associated with [illegible] Smith.

In 1853-54 Mr. Silas Derr became connected with this [illegible] business, but while interested in the [illegible] [illegible] tannery [illegible]. This tannery was operated until [illegible] when [illegible] it to Joseph Derr, after which date the tannery [illegible] [illegible] and there seems to be no further record of the [illegible] business.

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[illegible] Mr. [illegible] Derr, [illegible] [illegible] [illegible]. These [illegible] were [illegible] [illegible] [illegible] of the world. Mr. [illegible] [illegible] the death of Mr. [illegible] [illegible] [illegible] and it [illegible] [illegible] [illegible] copy be [illegible].

In [illegible] 17, 1850 [illegible] and [illegible] [illegible] on the island. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] I do not know. [illegible] Railroad [illegible] [illegible]

[illegible]

[illegible] boiler maker related the following story concerning this Mr. Noble. This old boiler maker as a young man worked under Mr. Noble and over heard what follows. First I will explain the situation that caused the story. It appears that Mr. Noble took a contract from [illegible] & Reading R.R. to do a job at Norristown. Something occurred that led to a law suit. Mr. Noble won the case in the lower courts, but the company decided to take it to the higher court. In the mean while the company offered to settle the case out of court. This Mr. Noble would not agree to do. The case came up in the higher court and Mr. Noble lost the case.

He was ruined and had to take a position as boiler maker. One day when Mr. Gowan who was also the president of the railroad came to the shop. Mr. Noble spied him and ran up to him and exclaimed! "Ah, Mr. Gowan you are the man that caused my ruin. Mr. Gowan replied, "No Mr. Noble you are the man".

In the year 1845 Mr. James Sparks, who was formerly superintendent of the Wren Iron Works purchased a piece of land from the Greenwood estate. In company with his brother John Sparks and a Mr. Edward Greathead formed a partnership. They specialized in the construction of steel plate work such as boiler, stack stacks, ventilating stacks, boiler breechings and air- pipe. Their shop was located at the lower end of the present shop yard. With a small force of men they soon established a strong flourishing business.

In 1857 Mr. Greathead was killed and 1860 Mr. John Sparks retired. In 1865 Mr. James Sparks took his son William and his son-in-law Piper Parker, into the firm and thereafter the company was known as Parker, Sparks & Co. Mr. James Sparks remained a silent partner. In 1879 the property was sold to the Reading Company and later became part of the Pottsville Shops of the Philadelphia Coal and Iron Co. After the sale the firm carried on their business at Coal and East Norwegian Streets. Later it moved to Fishback where it operated for many years. After the death of Mr. Parker some twenty-five years ago the plant ceased to operate. It was probably the last individually owned pioneer venture to go out of existence.

Francis B. Bannan dissolved his partnership with Mr. Robert Allison in 1876. In 1878 he opened up a small shop on Railroad Street, specializing in steam heating. In 1890 he retired from business. His shop, I understand, was on Railroad Street between Coal and East Norwegian Street. An old machinst told me that some of Bannan's machines are still in service in the present Pottsville shops.

To-day, many people in Pottsville enjoy the benefit and comfort of the Central Steam Heat Plant. The Pottsville Steam Heat Company was organized in 1888 and today it supplies a large area of the city. The plant is located on Railroad Street.

When the iron mongers, Reese and Thomas, came to this region

they built log cabins or huts to house their families. Within a few years the population of the community had increased to warrant better and more comfortable homes. Along with the development of the various trades the early home buildee flourished.

In 1816 Jacob Seitzinger came to Pottsville. He was a buildee and contractor. Many of the early stone structures were erected by him. I believe the old stone house on Centre Street opposite the Moose Hall was erected by him. In the early days many of the better

NOTE

Mr. Kopitzsch home was on Mauch Chunk Street and is now used as a nurses home for Pottsville Hospital.

homes were built of stone. Shortly after he came to Pottsville he established a brick yard on what is now the site of Pottsville Iron. Here the first bricks were made and the first brick building erected in Pottsville was located at the corner of Centre and East Norwegian Streets on the Southeast corner. For years it was known as the Hause Building. Hause family carried on a tobacco business in it for many years. A few years ago it was torn down to make way for a modern business building.

In later years there was a brick yard out in the west end of the city at a place generally known as West Woods. A man by the name of Rich operated this yard. It ceased to make bricks some thirty years ago.

I have also been told that there was a flourishing pottery plant located at about the site of Ulmer Packing House on Water Street.

There were many other lines of business established and operated by the early pioneers. Many have long ceased to exist thru lack of demand, more advanced articles with progress of the world or the owners leaving no heirs to carry on.

In 1844 Charles F. Kopitzsch, a German immigrant started to make soap and candles. It was known as the Pottsville Soap, Star and Candle Company. In 1878 they erected a large building for their business at the corner of North Third and Rose Streets. This business was operated by Mr. Kopitzsch until his death in 1907.

After Pottsville's bad fire in 1914 the firm of Britton-Hoffman established themselves in this building and they used the old building for show room and repair shop.

The Seltzer family of pioneer German stock came to Pottsville and became butchers. The family established a meat packing house that operated for many years. A few years ago this plant had to close down due to business conditions.

Another meat packing house started by a German pioneer family was Bellinger Veal Packing Company. After many years of successful operation Mr. Bellinger retired and the plant was closed down.

The Jacob Ulmer Packing Company had its inception in the year 1856, eighty-three years ago. They first ran their slaughter

meat business as makers of quality sausage. By reason of the quality of their products, hard work and frugality, their business grew and prospered, and they were able to establish a Retail Store.

The business soon reached proportions requiring more capital, as well as help to develop plans for a wholesale Plant or Packing House. This brought about an association with two other men -- one a butcher, by name, Louis Stoffregan and a sheep drover by the name of David Neuser. This partnership lasted thru two years when the new partners of Jacob Ulmer became disappointed and discouraged, principally because of the severe competition of the firm of John Allen of Philadelphia. Accordingly they sold their interests to Jacob Ulmer. This was in 1873. Thus under early handicaps was the business to survive. The company continued under the personal guidance of Jacob Ulmer until 1890 when a charter was applied for. This granted August 11th of the same year. The capital being $150,000 & vided into 1500 shares of $100.00 par value. Jacob Ulmer became president and his son Jacob S. Ulmer the secretary-Treasurer.

Jacob Ulmer died in 1904. Jacob S. Ulmer succeeded him to the Presidency and Mr. Louis F. Ulmer was elected Treasurer with A.M. McCool as Secretary.

Jacob S. Ulmer died in 1928, Louis F. Ulmer succeeding him. Louis F. Ulmer died May 18, 1936, Julian F. Ulmer succeeding him as President with Louis F. Ulmer Secretary and Jacob Ulmer as Treasurer.

I am indebted to Mr. Julian F. Ulmer for the above information regarding the Jacob Ulmer Packing Co. I regret to state that this plant was compelled to close down due to business conditions.

Another venture which has meant a great deal to Pottsville as well as to the entire county has been the manufacture of electrical energy. It was developed and established the need for many good things which make life easier and happier. Before our forefathers would considered fantastic and impossible, if not heinous and the works of the devil.

I will remember when I first came to Pottsville, many long ago, the streets were dimly lighted and the only electrical sign the town could boast of was the pioneer sign over the door way of Seyfert & Wolfgang Drug on Centre Street. The people of Pottsville should preserve this sign as a relic. Those days it closed at eight the entire town was deserted and in practical darkness. All good citizens were safe in bed and the individual found out after that hour was sure to be on the road to ruin. Pottsville and environs from every viewing point. Stand at the corner of Centre and Mahantongo Streets and look south at the hour of 10 o'clock at night and it looks like the great white way of N. Y. City and none of greater citizens are loaded for the devil. We are just trying to state with the progress of the times.

Most of [illegible] can be traced to the discovery and [illegible] electrical current and many inventions [illegible] have come into use. The electrical power, [illegible]

been elert at every point and to them the city owes their advance in illumination. I am indebted to Mr. William G. Long of P.P. & L.Co. for the history of the electrical industry in this region.

In the year 1883 Pottsville emerged from its kerosene day with the incorporation of the Pottsville Electric Light [illegible] and Power Company, which charter was granted on April 17, 1883. The primary object of this company was to light the streets of Pottsville by means of electricity eliminating the old lamp posts with kerosene lamps.

A small D.C. generator was installed in the gas house building located on the corner of Railroad and Mahantongo Streets in Pottsville, and the old type D.C. carbon arc lamps were sparsely scattered throughout the business section of the town.

On June 27, 1889 a perpetual charter was granted to the Edison Electric Illuminating Company of Pottsville, followed by a charter which was to exist for 100 years which was granted the Anthracite Electric Light and Power Company on August 1, 1889.

The Edison Electric Illuminating Company was located on Logan Alley in Pottsville, on the plot of ground now occupied by the Hippodrome Theatre.

Immediately competition arose between the two companies, especially for lighting the streets of Pottsville. This competition was very keen, and it was not an uncommon sight to see two arc lamps installed at the same location and frequently both lamps were burning at the same time.

The early street lighting contracts were for short terms because of this competition and the possibility of rates cutting. The lighting hours were known as moonlight schedule. The effect, on moonlight nights the lamps were not lighted. Thereby saving the town the expense in connection therewith.

Edison Electric Illuminating Company was not only endeavoring to obtain street lighting business, but immediately started a campaign to develop the use of electricity in the business places along Centre Street in competition to the lighting by existing carbon arc lamps and carbon incandescent lamps on the pole lines.

This competition lead to an agreement of July 1, 1906 whereby the J. G. White Company, Inc. were engaged as General Managers of the Anthracite Electric Light and Power Company and the Edison Electric Illuminating Company of Pottsville. Because of the relations existing between the two mentioned companies by reason of stock ownership, the two properties were operated as one.

Up to this time both the business and residential electric lighting had a very slow development, but under the management of the J. G. White Company, Inc. many new and up-to-date methods were adopted and a greater effort was made to increase the sale of electricity.

The generating plant on Logan Street was not of sufficient capacity to take on any great amount of new business, and plans were

been given [illegible] and to [illegible] city [illegible] their ad-
vance in illumination. I am indebted to Mr. [illegible] of
[illegible] for the history of the electrical industry in this
region.

In the year 1885 not until [illegible] from the kerosene era
with the incorporation of the [illegible] Electric Light, Heat and
Power Company, which charter was granted on April 17, 1885. The
primary object of this company was to light the streets of Potts-
ville by means of electricity, eliminating the old iron posts with
kerosene lamps.

A small D.C. generator was installed in the gas house build-
ing located on the corner of Railroad and North Centre Streets in
Pottsville, and the old type D.C. carbon arc lamps were [illegible]
[illegible] throughout the business section of the town.

On June [illegible], 1889 a perpetual charter was granted to the
[illegible] Electric Illuminating Company of Pottsville, followed by
a charter which was to exist for 100 years which was granted the
[illegible] Electric Light and Power Company on August [illegible], 18[illegible].

[illegible] in Pottsville, on the plot of ground now occupied by
the [illegible] [illegible].

Immediately competition arose between the two companies,
especially for lighting the streets of Pottsville. [illegible] competition
[illegible], and it was not uncommon to see two arc
lamps installed at the same location and frequently both lamps
were burning at the same time.

[illegible] early street lighting contracts were for short terms
because of this competition and the possibility of price cutting.
[illegible] were [illegible] schedule. [illegible], on
[illegible] nights [illegible] the
town [illegible] contract [illegible].

[illegible] Electric Illuminating [illegible] street lighting business, [illegible]
[illegible] to develop the use of electricity [illegible]
along Centre Street in [illegible] to [illegible] lighting [illegible]
[illegible] incandescent lamps [illegible].

[illegible] of July 1, 1900 [illegible]
the [illegible] Company, Inc. [illegible]
the [illegible] Electric Light and Power Company [illegible]
Electric Illuminating Company of Pottsville. Because of [illegible]
[illegible] between the two [illegible] by reason of [illegible]
[illegible], the [illegible] were [illegible].

[illegible]

[illegible]

were cramped for space and could not install additional generating equipment, the Palo Alto Heat, Light and Power Company was granted a perpetual charter on September 13, 1906 and a new generating station was erected in Palo Alto, where three (3) steam driven, rope drive generators, direct current were installed and operated until the the destruction of the plant by fire in 1917.

As business developed two (2) Corliss Engines with 1000 K.W. generators were installed in Palo Alto and later a 1000 non-condensing turbine, followed by a 3500 K.W. condensing turbine, increased the capacity of the plant.

At the time of the disastrous fire, the rope drive direct current generator and engines and the 3500 K.W. turbine in the generating plant in Palo Alto were damaged beyond repair. These were replaced by installing 2000 K.W. and 1500 K.W. condensing turbine. Electric lighting service was partially restored the day after the fire, but the trolley company was without service for several days as the fire had seriously damaged the railway machines making it necessary to secure another machine while damaged ones were being repaired. The machine secured was left on a flat car and connected for service. It was used in this manner until the damaged machines were repaired.

At the time of the fire the boilers in the plant were hand fired and since the load was increasing rapidly it was almost impossible to keep up steam sufficiently to supply the necessary service and interruptions were frequent until the Roxe Inserting Grates were installed, overcoming the difficulty in firing the boilers and which evidentally was a means of decreasing the cost of generation.

Because of the large amount of new business being secured, the distribution facilities were severely taxed and in many instances developed trouble that caused interruptions in service to customers, necessitating revamping of the distribution system, increasing the capacity of lines and the erection of additional distribution lines throughout the city.

Originally the office of the Edison Electric Illuminating Company was located in a small building on the corner of Logan and East Market Streets and this very soon became inadequate for the amount of business handled, and the office was moved to a new location at 107 North Centre Street, Pottsville.

In the year 1908 the Palo Alto Heat, Light and Power Company acquired the Minersville Electric Light Company. This company was granted letters of patent issued July 1d, 1908 and had erected a small generating plant supplying electric service to the inhabitants of the Borough.

By agreement of sale dated July 20, 1909 the Palo Alto Heat, Light and Power Company acquired both the Edison Electric Illuminating Company of Pottsville and the Anthracite Electric Light and Power Company.

It was soon found that this building was not adequate for proper handling of the business of the company, and the offices were located in the P.O.S. of A. building.

Streets, Pottsville.

On July 20,1909 the Palo Alto Heat, Light and Power Company by agreement of sale acquired the Frackville and Gilberton Light, Heat and Power Company, which company was granted a perpetual charter on August 25, 1890.

The Frackville Light, Heat and Power Company was owned and operated by local capital until its purchase in 1909. It had a plant capacity of [illegible] K.W., and operated alternating current, 60 cycle three phase 2300 volt service. In addition to extending service throughout the Borough of Frackville it also supplied electricity to the Boroughs of Gilberton, Mahanoy Plane and Girardville, and obtained the first street lighting contracts for these Boroughs. Later a competitive condition was created by the Shenandoah Electric Company in Girardville and the Gilberton Valley, but at no time was there any competition in the Borough of Frackville.

By agreement of sale dated July 20, 1909 the Tamaqua Light, Heat and Power Company was acquired by the Palo Alto Heat, Light and Power Company. This company was granted a charter to exist perpetually on February 24, 1905. However, the Edison Electric Illuminating Company of Tamaqua had been granted a perpetual charter on July [illegible], 1885 and a new charter to exist perpetually was granted the Edison Electric Illuminating Company on July 24, 1889. The Edison Electric Illuminating Company of Tamaqua was acquired by the Palo Alto Light, Heat and Power Company by agreement of sale on July 20, 1909.

On August 21, 1909 a certificate of change of title was issued by the Secretary of the Commonwealth changing the title of the Palo Alto Heat, Light and Power Company to Eastern Pennsylvania Light, Heat and Power Company.

By agreement of sale dated June 26, 1913, the Eastern Pennsylvania Light, Heat and Power Company acquired all franchises, real and personal property of the Edison Electric Illuminating Company of Ashland, which company was granted a perpetual charter on April 17, 1884 and a new charter was given them on October 10, 1889.

On March 25, 1893 the Edison Electric Illuminating Company of Ashland purchased the street lighting plant of the Ashland Gas Light Company. The Edison Electric Illuminating Company of Ashland operated a direct current plant supplying arc lights for the town in competition with the Ashland Gas Light Company, which company had an old Thompson-Houston 25 arc light machine. In 1910 the plant was changed to alternating current operation with the installation of an [illegible] steam turbine unit, with necessary auxiliary transformers. Only night service was furnished and interruptions were frequent. In the same year the company extended it lines to serve Locustdale, and 1912 service was extended to Centralia. In 1914 [illegible] Eastern Pennsylvania Light, Heat and Power Company, extensive service was extened to the Borough of Gordon.

A charter was issued on May 25, 1909 to the Middleport Electric Light and Power Company, [illegible] Light, Heat and Power Company, both of which companies were later acquired by the Eastern Pennsylvania Light, Heat and Power Company.

On July 16, 1916 the Eastern Pennsylvania Light, Heat and

Company, which company was granted a perpetual charter on December 20, 1910. This company had been owned and operated by local capital and had a very small generating plant supplying service to Auburn and Port Clinton.

On July 18, 1916 the Eastern Pennsylvania Light, Heat and Power Company by agreement of sale acquired the property of the Tremont and Pine Grove Electric Light, Heat and Power Company. This company was granted a charter for 99 years on June 15, 1894, and was owned by local capital. It had a plant capacity of 240 K.W., alternating current, 2200 volt generation, and the company operated in Tremont and vicinity, including Donaldson. Electricity was sold to the home on a flat rate of 1.80 per month for four (4) 16 candle power carbon lamps. In 1916 they sold their interests to G. Parkman of Philadelphia, and John Hess of Lancaster, after which a few meters were installed and service was supplied at 10 cents per K.W.H. with a minimum of 1.00 per month.

The Eastern Pennsylvania Light, Heat and Power was later operated under the name of the Eastern Pennsylvania Power and Railways Company, and in 1922 this company purchased the Pine Grove Electric Light, Heat and Power Company, which had been granted a perpetual charter on October 17, 1910 and was owned and operated by Messrs. Drumheller and Troxell from 1912 to 1922 when purchased by the Eastern Pennsylvania Power and Railways Company. On Nov. 15, 1923 the Eastern Penna. Power and Railways Co. sold all its corporate rights, franchises, property etc. to the East P. L. Co. On December 12, 1924 the East Penn Electric Company by deed acquired the property of the Lykens Valley Light and Power Company. This company was originally operated in the name of the Sterling Electric Light, Heat and Power Company which company was granted a perpetual charter on March 18, 1908, and on February 12, 1909 the name was changed to the Sterling Consolidated Electric Company by merger of the following electric companies:

The Sterling Electric Light, Heat and Power Company
The Home Electric Light, Heat and Power Company of Williamstown
The Porter Township Electric Light, Heat and Power Company
The Tri-Union Electric Light, Heat and Power Company of Dale Run
Wiconisco Electric Light, Heat and Power Company
The Lykens Electric Light, Heat and Power Company

The name of the Sterling consolidated Electric Company was changed to Lykens Valley and Power Company by certificate dated June 28, 1915.

Originally the Sterling Electric Light, Heat and Power Company was owned and operated by local capital and furnished light service only. This company was later purchased by the Lykens Elec. Co. of Millersburg and operated as Lykens Valley Light and Power Company. Under this last name the company had a capacity of 300 K.W. its rate for electric lighting service was 14 cents per K.W.H. with a minimum of $1.50 per month. This company was also furnishing service to the City Light and Power Company with its delivery point at Lykens, and the City Borough had similar rates with a minimum of $2.00 per customer per month.

On November 17, 1924 the East Penn Electric Company by deed

acquired the property of the Port Carbon Electric Light Heat and Power Company. This company had been granted a franchise on March 29, 1897, and was owned and operated by Lloyd Bartol. A very small generating plant was installed in Bowers Silleman's Foundry and Repair Shop on the Lower Main owned and operated by J. Robert Bazley. On May 21, 1928 the East Penn Electric Company by deed sold all franchises and property used in the maintenance and operation of its system of street railways to the East Penn Traction Company.

On May 28, 1928 Pennsylvania Power & Light Company by deed acquired the property of the East Penn Electric Company, which it had operated since April 1, 1925.

On August 20, 1929 by agreement of sale, Pennsylvania Power & Light Company acquired from Klingerstown Light Company certain electric systems situated in and near the village of Klingerstown, Upper Mountain Township, Schuylkill County Pennsylvania. This plant was owned and operated by private capital and service was supplied to stock holders only. The plant had a capacity of 28 K.W. and was driven by a water wheel when sufficient water was available. During low water periods it was necessary to use an oil engine. Service was only supplied when there was sufficient water and only during the early hours of the night the rate was 20 cents per K.W. with a minimum of $2.00 per month.

On December 31, 1930 Pennsylvania Power & Light Company acquired through merger the property of the Citizens Electric Company, which was chartered on January 2, 1920. This company had merged the Hunley Township Electric Company which obtained its charter on June 14, 1916. The merger of the Hunley Township Electric Company with the Citizens Electric Company was as of January 2, 1920.

On February 14, 1938, Pennsylvania Power and Light Company through merger acquired the Lehighton Electric Light and Power Company, which company had letters of patent issued on June 4, 1907.

As a result of the rapid growth of the Eastern Pennsylvania Light Heat and Power Company, the Palo Alto generating plant had proved inadequate, and in 1929 a new power station had been erected at Pine Grove and the Palo Alto plant turned into a sub-station.

The Pine Grove plant as now operated by Pennsylvania Power & Light Company is modern and up-to-date in all its equipment. Electricity is generated at 11000 volts, stepped up to 66,000 volts and transmitted to various substations throughout Pennsylvania Power & Light Company territory. The plant now has a capacity of 58,000 K.W.

The Pottsville Division of Pennsylvania Power & Light Company extends from Port Clinton, Schuylkill County, on the north to Berrysville in Columbia County on the north, from Tilghmanton, Berks County on the east to Klingerstown, Dauphin County, on the west, and includes all of the territory supplied by the smaller companies here in before enumerated. The present Pottsville Division office is on the second floor of the Schuylkill Trust Building, corner Centre and Market streets, and the Pottsville office is located

On May 29, 1928 Pennsylvania Power & Light Company by deed acquired the property of the Bast Penn Electric Company, which it had operated since April 1, 1925.

On August 9, 1929 by merger of more, formerly the Power & Light Company acquired from Pitt Petroleum Co. Company owned property on which was then standing the village of Kiltorstown,

which was owned and operated by private capital and serving with current to about 1000 persons only. The plant had a capacity of 75 K.V.A. and was driven by a water wheel when sufficient water was available. During low water periods it was necessary to use an oil engine. Service was only supplied when there was sufficient water and only during the early hours of the night the rate was 20 cents per K.W. with a minimum of 75.00 per month.

On December 31, 1929 Pennsylvania Power & Light Company acquired through merger the property of the Middlebrook Electric Company, which was operated on January 2, 1930. A hydro-electric plant was erected by the Company on the Big Muddy Creek near Downsville Township which obtained its power from a dam on the Big Muddy River at Kiltorstown. The power of the hydro-electric plant was increased by the addition of a 300 K.W. oil engine.

On December 14, 1932, Pennsylvania Power and Light Company acquired by purchase the property of the Kiltorstown Electric Company, which was operated under a franchise granted on June 4, 1914.

By a merger of the power plants of the Pennsylvania Power and Light and Power Company, the Falls Mills Power Company and the Kiltorstown Electric Light and Power Company, and the Kiltorstown Power Company, approved by the Commission on June 4, 1934,

at the corner of Center and Arch Streets, Pottsville.

Pennsylvania Power and Light Company has not only well earned a reputation for good and continous service to its customers, but it has from time to time reduced its rates for electric service. Its efficient service and the courteous treatment of its customers has resulted in splendid public relations throughout the communities served.

Pottsville Water Company chartered in April 11, 1834.
Pottsville Gas Company organized in 1849.

It will interest you to learn that Rudolph Leschot of Paris France the inventor of the Diamond Drill introduced his invention into the region in 1863. In 1867 the Penn Diamond Drill Company was organized under the management of a Mr. Samuel E. Griscom. This company had a shop on South Centre Street. In 1887 they moved to Birdsboro, Pa.

The Pottsville Spike and Bolt Works was founded in 1872 and incorporated in 1890. It was located on Coal Street and employed about thirty men and boys turning out spikes and bolts. It ceased to operate about 15 years ago. At the time it closed it enjoyed to the reputation of being the oldest plant of its kind in the United States.

Besides the concerns I have mentioned there were many other ventures attempted, perhaps not so pretentious but nevertheless added to the industrial life of Pottsville. Some of these have long ceased to exist some are still part of our business fabric. I will note briefly some that comes to my mind:

Wm. Buechley Planning Mill and Lumber Yard Coal Street,
Sailor Planning Mill and Lumber Yard, Palo Alto,
D. G. Mathews & Co. Carriage Builders, W ashington & Coal Sts.
Thomas J. Donohue Carriage Builders, Norwegian & 2nd Sts.
Parker & Bohler, Spoke and Handle Factory, Norwegian St.- between Coal and Railroad Streets.
Geo. Laurers, Orchard Brewery founded in 1830, located on [illegible] Carbon.
Rettig & Liebner Brewery, Ninth and Market Sts.
In 1829 D. G. Yuengling started a brewery on Mahantongo & 5th Streets, known as the Eagle Brewery. In 1873 it became D. G. Yuengling & Son.

Before I close I wish to mention rather rapidly and also [illegible] towns that will interest you as Mechanical Engineers.

I have already noted the Grant Iron Works established by [illegible] recent years Mr. J. F. [illegible]

In Minersville, William DeHaven set up a blacksmith and [illegible]

claim he operated the shop until his death others claim he failed in 1858. In 1864, Gartley and Fox purchased the property. At first their intentions was to limit their efforts to local colliery work, but later they branched out until they embraced a wide range of business activities. It has been stated that in 1881 they did volumes of business, amounting to $200.000. I do not know what caused them to close or the date, but it must have been over forty years ago.

At Donaldson there was the Donaldson Iron Works owned and operated by Adam Ferg.

At Tremont, Calvin Brower owned and operated the Tremont Iron Foundry and Machine Company.

In 1873 a shop known as the Minersville Coal and Iron Company was started .

These old shops have disappeared many years aog.

In 1830 Geo. N. Eckert and Simon Ginford started an iron furnace at Pine Grove, known as Swatara Iron Furnace. Later it was converted into a forge. Down along a swiftly running stream at a beautiful spot known as [illegible], along the old Schuylkill and Susquehanna R.R. now a [illegible] of the Reading system, one can readily see the outlines of remains of one old furnace.

In 1810 Tobias Rishel erected and operated a forge at Pine Grove. In 1819 Peter Filbert purchased this property and erected a factory for the manufacture of edged tools. It was known as the Tilt Hammer Forge Co.

All over the region one could find tanneries. Pottsville had several. Up to a few years ago, Pine Grove had one of these old tanneries, it has since been dismantled. At present there is a tannery at Pine Grove, but is of more recent date.

So gentlemen, I have endeavored to describe briefly and at the same completely as possible, the industrial life of the community and vicinity. Particularly dealing with those things that would interest the financial engines. Other phases of industrial such as, mining, lumbering, railroading and navigation I feel should be handled in a separate manner.

It has been interesting to me, as I read the many stories of the early life of Pottsville or listen to some timer repeat a legend his father or grandfather told him. Some bore the ear marks of reliability, but many were unfortunately passed by unless for future confirmation.

It is hard for one to view, a century of industrial development and not to consider what the future holds for a community such as Pottsville. As anthracite coal, our natural resource has been our strength in years gone by, so I believe that the strength of future lies in our coal. In dealing with more uses of our coal we must employ greater power, more technical experts in the field of research. But I personally do not believe we have used coal inefficiently, but rather a research for a new field to create uses for anthracite coal that will help all mankind.

EDWARD F. C. DAVIS

President, A.S.M.E.
1895

Joined A.S.M.E. 1881; President, 1895, Vice Pres., 1893-1895

Born 1847. Died August 6, 1895.

Organizer, administrator, humanitatian leader of men.

Mr. Davis was born in Chestertown, Md., and was graduated from [illegible]. His early work was performed as [illegible] for the Philadelphia and Reading Coal and Iron Company and as general manager for the Richmond Locomotive and Machine Works. He had an important part in the improvement of railroad motive power, particularly in the development of the compound locomotive, and showed unique skill in handling great numbers of men in large establishments. In a decade of special labor difficulties for engineers and contractors of such systems, he successfully conducted strikes of great magnitude, [illegible] of the product while raising the earnings of his men.

Draughtman for Atkins Rolling Mills of Pottsville and than Draughtsman for the Colliery Iron Works (Haywood & Snyder then) Pottsville. Became principal Draughtsman for [illegible] & Iron Co. In 1872 became superintendent of the works at the age of 32 years.

C. W. Hunt & Co. Staten Island, 1891
1890 - 1895 Richmond Locomotive Works
1895 became connected with C. W. Hunt at State Island.

He was buried in Pottsville, Pa.

See vol. XVI A.S.M.E. 1895 page 1177.

Franklin B. Gowan born in Philadelphia, Feb. 9, 1836, died Dec. 14, 1889 at Washington.

Emmitsburg, Md .

Moravian School at Litiz, Pa.

1858 entered coal mining engineer corps Pottsville (Graduated)

abandon mining, studied law.

Admitted to the bar 1860.

1862 - D. A. Schuylkill County

1869 - Elected President P.& R.R.R. Co.

Mr. Gowan conceived the idea of the present Phila & Reading Coal & Iron Co. which he established in 1871.

General Henry Pleasants Civil Engineer

Born - Buenos Ayres S. A., Feb. 17, 1833

Came to Philadelphia in 1846

1857 started in at Pottsville as mining engineer

1861 entered the Army Sept. 11, 1861 served three years.

1862 Lt. Col.

June 1864 commanded Second Brigade.

Second Division 9th Army Corp. at Petersburg,

1864 General

Became Chief Engineer of P. & R. C. & I. Co.,

See Bio'g in Lib.

Copy of Original
Application for
membership ASME

ROBERT ALLISON
Port Carbon, Pa.

1884.

Robert Allison, Franklin Iron Works
Port Carbon, Schuylkill Co., Pa.

Proposers (3)

E. F. C. Davis
S.B. Whiting
E.D. Leavitt, Jr.

Seconders (2)

W. E. Good
F. R. Hutton

Statement of Professional Service:

Served a regular apprenticeship to the general Machine business with [illegible], Haywood & Taylor at [illegible] Works of Pottsville, Pa. Worked as journeymen machinist for about two years. Acted as Supt. of Machine works of Mr. T. H. Wintersteen, in Port Carbon, Pa. and B. F. Pomroy & Son in Pottsville, Pa. for about [illegible] years, being all the business the above works [illegible] that time. Since 1864 have been proprietor of the Franklin Iron [illegible], Port Carbon, Pa., [illegible] ing of all the machinery made at those works; am the inventor and patentee of the Hydraulic Feed for Diamond Drilling Machines, Allison's Cataract Steam pump -, two patents on Rock Drills, &c.

Deceased 1916.

Present (2)

E. F. C. Davis
S. S. [illegible]
L. D. Leavitt, Jr.

Excused (2)

W. E. Jones
E. P. Hutton

S. B. WHITING
11 Ware St., Cambridge, Mass.

Whiting, S. B. Mem. A.S.M.E. 1880, Manager 1880-1882, V.P. 1882-1883

1880-88 Mgr. Ch. Eng'r Phila. & Reading Coal Co., Pottsville, Pa.

1899 - Gen. Mgr. Calument & Hecla Mining Co., Boston

Deceased 1915.

Schuylkill County erected in 1811.

County surveyors. 1940

1884 Geo. W. Beadle
1887 John Stoudt
1890 Frances Moyer
1893 J. W. Greary
1898 Francis Moyer
1901 C. H. Kerschner
1904 J. W. Greary - - died 1939
1939 Robert Seltzer

From Howard Lynch

Wm. Pugh - Mining Engineer

COUNTY ENGINEERS
1921 Samuel Crawford, Minersville, - 7 years
1928 Jos Dando - 4 yeaes, elected Senator (State)
1932 -1936 Damuel Crawford, Minersville
1936 - to date, Robert Schneck, Minersville

[illegible] was the surveyor who laid out the City of [illegible] into building lots in 1816.

11 Duke St., Portsmouth, Hants.

1870 – 6 m. Ver. Calumont & Hook's Marine Co., London

1870 – 7 m. Th. Hugh's mills. & Ironside Wks. No., Portsmouth.

Leased 1917.

Schuylkill County erected in 1812.

1827 John Stroud — Byron Howard Lyman
1829 Benjamin Hoyer
1836 J. W. Jones
1838 Pericle Mayer
1841 C. M. Kronheimer
1844 J. W. Penny – d 1st 1866

Wm. Pugh – Mining Engineer

1822 Samuel Cromford, Minersville, – 7 years
1838 Joe Tardo – 4 w ea, elected Se ior (Costa)
1846 –Lewis Dimel Cromford, Minersville
1850 – to date, Robert Sabbeck, Minersville

Henry Conrad w e the surveyor who laid out the City of Portsmouth.
Into Philadelphia Lots in 1856.

DATE	PLACE	[illegible]	[illegible]
1810			which they [illegible]
		[illegible]	[illegible] anthracite [illegible]
1804 or 1805	New Phila.		[illegible] Furnace [illegible] near New Phila. [illegible]
[illegible]	[illegible]		[illegible]
1830	Port Carbon	[illegible]	[illegible] Valley [illegible] saw mill. [illegible] anthracite [illegible]
1829	Port Carbon	[illegible]	[illegible] years old landed in Phila. [illegible] Rhein [illegible] Rhein's [illegible] his luck [illegible] Pottsville. [illegible] in the [illegible]
1830		"	
1840		"	[illegible]
1843		"	[illegible]
1830	Pottsvil	And'w [illegible]	[illegible]
1834	Pottsvill		Pottsville [illegible]
1849	"		Pottsville [illegible]
[illegible]	"	[illegible]	[illegible]

DAT	PLACE	NAME	DESCRIPTION
1780	Pottsville	Maj.Gen. Balsar Gehr	Established a saw mill
"	"	Basler	Saw Mill mouth of Norwegian Creek
Prior 1780	'	Henry Nieman	Built a log cabin-massacred by Indian, [illegible]
	"	Cap't Leary	At the time of the tragedy was encamped at a site near Mesito, Mt Carbon, Rolling Mills incommand of a company of marines guarding men cutting timber for the young American Navy and their Ally, the French Navy, to be used for masts.
1795-1806	"	Lewis R Reese and Isaac Thomas	"With their emoloyees, some eight or nine families located north of sharp mountain in the Schuylkill Gap and erected a small furnace" This was operated until John Pott purchased it in 1806.
1804	Pt Carbon	John Pott	Settled in Schuylkill purchasing the Physick tract.
1806	Pottsville	John Pott	Purchased the Reese and Thomas Furnace-He tore it down and erected a forge.
1807	"	John Pott	Built a furnace opposite his forge during the eredtion of this furnace he experimented with anthracite coal and made several tests of its virtues as a fuel
1810	"	John Pott	Moved to Pottsville - located in a home on Mauch Chunk Street - in a clearing he set out an orchard - from this little tne section has since been know as the orchard.
1810	"	"	He built a grist mill at the same, which was known as the Orchard Grist Mill. It was located about where P & J. factory is located - while digging the foundation he struck a vein of coal-nine foot thick.
1810	"	"	When J. Pott and family moved to the furnace at Pottsville, the region was in a [illegible] wild nature. The iron ore was obtain locally, known as bog ore and ball ore. The iron was cas into hollow wear as kettle and pot and sold to farmers mainly from the Susequehanna Valley. It was like a barter. They had no money, but they had grain.

"	"		
"	"		
"	"		
"	"		
"	"		
"	"		
"	"		

DATE			
1780	[illegible]	[illegible]	Henry Nieman and [illegible] Indian August 27,17[illegible] Jackson and Mauch Chunt St. opposite the Pott[illegible] Hospital. At this time Capt. Leary of the Continental was at the site of the Mt Carbon Rolling Mills, guarding [illegible] of wood cutters cutting timber for masts for French & Continental navies. Mt Carbon Rolling Mills - Balser Gehr one[illegible] of [illegible]
[illegible]	[illegible]	[illegible]	[illegible] an at Haywood & Snyder and started [illegible] foundry at the site of the Reading freight depot (old freight depot) it was known as the Eagle Foundry.
1850	"	"	Thomas Wren and his brothers built and [illegible] foundry and machine shop on Coal St. [illegible] the Washington Iron Works, where was [illegible] [illegible] and BAR iron the [illegible] & Jo at Fishback and [illegible] the Palo Alto Mill of Lee, [illegible] time John Y. Wren wi[illegible] [illegible] Thomas & James Wren cont. until [illegible] [illegible] to Mahanoy City and started [illegible] Iron Works.
1854	Mah. City	[illegible] Iron Wks	
1874 [illegible]	[illegible]		[illegible] In 1834 and out on a firm

		DESCRIPTION	
[illegible]ottsville	[illegible]	"With their employees, some eight or nine families located north of Sharp Mt. in the Schuylkill Gap and erected a small furnace" This was operated until when John Pott, Sr. purchased it. He tore it down and erected Greenwood Forge and in 1807 he erected Greenwood Furnace and operated it until his death in 1827	1795-1806
Pottsville	John Pott	While engaged in Building Greenwood Furnace and Forge John Pott made a most satisfactorily test of the virtures of the black rock as a fuel	
"	John Pott	While sinking the foundation of the Orchard Grist mill opened a vein of anthracite coal nine foot thick	1810
	John Pott	Founder of Pottsville became a resident of Schuylkill County. This year he acquired Physick Tract where Pottsville now stands and including Port Carbon.	1804
Pottsville	Jon Pott	Erected a furnace in what is now called the Orchard at the N.W. corner of Coal and Mauch Chunk St. a forge was erected shortly afterwards near the site of the Pioneer Furnace. The ores used were local bog iron procured from the neighborhood and ball ore gathered from the surface of the ground. Remained in operation until the death of John Pott in 1827.	1806
Pottsville		John Potts and family moved to the furnace at this date Pottsville was in a state of wild nature. The iron was cast into hollow ware and traded to Farmers generally from the Susequehanna Valley for grain.	1810
	David Berlin	About this time David Berlin conceived the idea that he might use this coal in his forge and he did so for four months during the erection of the Shollenbergers Mill. He built his fire first with charcoal--others some followed his example	
New Phila.		Valley Furnace built as a charcoal furnace	
	Dr. Geisenheimer	--A minister made an effort to make iron using a hot blast.	

Place	Name	Description	Date
Pottsv'l	Pottsville Iron &Steel Company	For eleven years the Fishback Rolling Mills has not been idle a day. It is owned and operated by Pottsville Iron and Steel Co., which operates the three Pioneer Furnaces, and Port Carbon Rolling Mill Mr. Charles M. Atkins, Mr. Hanson A. Atkins, died 1870 William W ay Atkins, died 1863 ? Came from Phila. and purchased the Pioneer Furnace.	1871
Fishback	Mr. John Burnish	Mr. John Burnish erected the Fishback Rolling Mills in 1852 and in 1864 Mr. Burnish found could not carry on and sold it to the Atkins.	
"	Atkins Pottsville Iron & Steel Co.	Erected a large machine shop employing 200 men	
Pt Carbon	Boyer	Mills he had some trouble with the P. & R.R.R. to whom he transferred his property. They in turn, ferred to the Atkins in 1879	79
Pottsv'l	Logan	rebuilt and enlarged it built their second furnace.	
"	"	Built their third furnace	
"	"	Employed 250 men (1881) annual consumption of 50,000 tons of anthracite 85000 tons of limestone. 70,000 tons of ore to pig iron	

Place			
Pottsville	Haywood & Snyder	Also built the machinery for Phoenix Iron Co. and Peter Cooper at Trenton, N. J. Also Bevan Humphries at Allentown.	
Pottsville	Haywood & Snyder	About this there there was a great rush of citizens to Cal. The Gold Rush was on and Haywood disposed of his interest and the firm became Milnes Co. This Ben. Milnes had been a Partner of Mr. Haywood in the coal mining business.	Snyder
Pottsville	Snyder & Milnes	The firm of Snyder & Milnes dissolved partnership and Mr. Snyder operated it individually until the W. Snyder Co. was chartered in 1881.	1854
Pottsville	Geo. W. Snyder Co.		
Pottsville	P.&R.C.&I. Company	Was chartered Franklin B. Gowen was President. After Geo. W. Snyder Co. shops were obtained it was found too small for the large amount of business viz. collieries of the company Tomeroy's : Washington Iron Works : These properties acquired Jabez Spark : Mr. F. C. Davis was the first supt. of the shops under the Coal Company. He was also a charter member of the A.S.M.E. and Visc. Pres. of Society?	1871

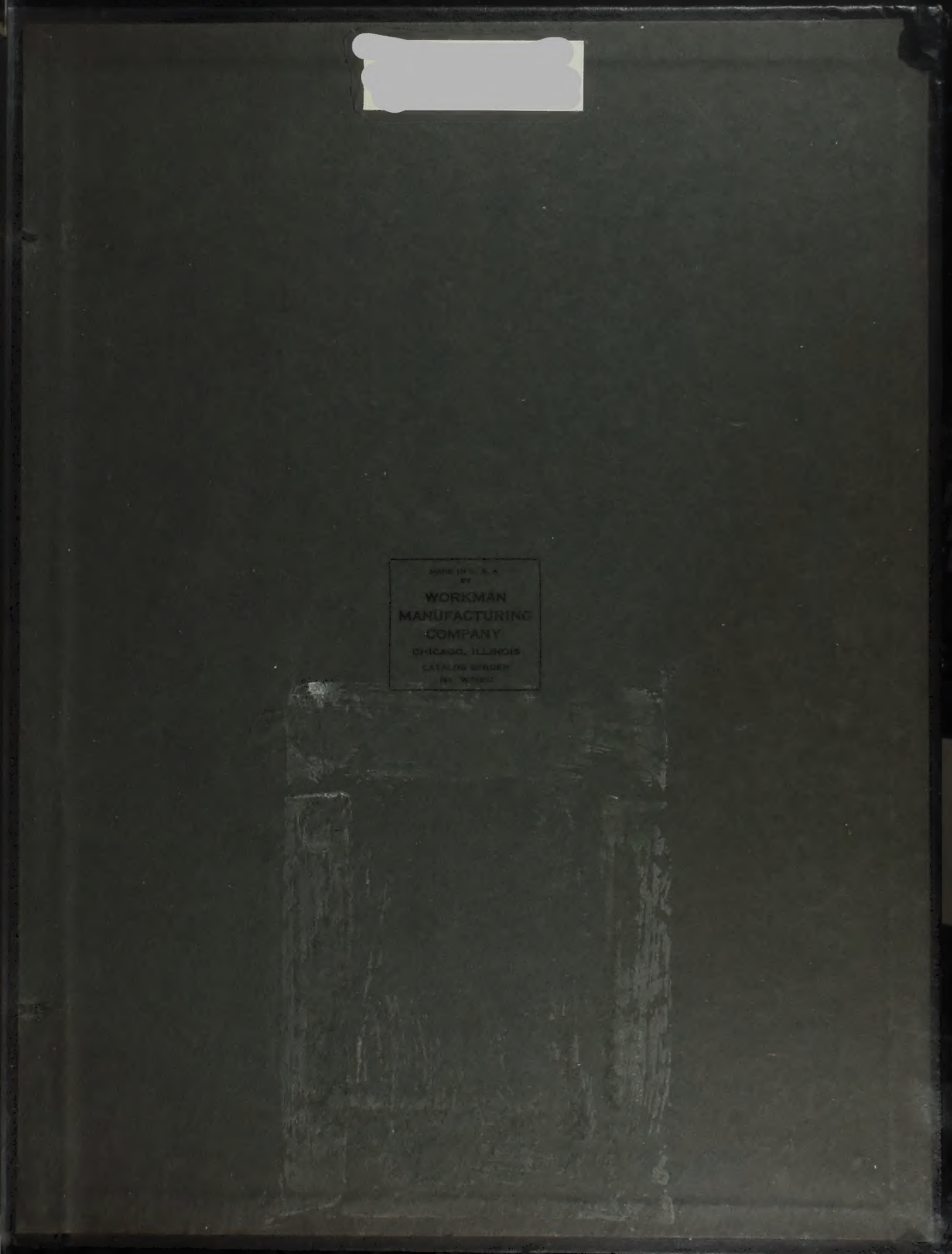
Place		Description	
Pottsville	The Orchard Iron Works	borough which has taken a local name in allusion to the orchard which John Potts set out there soon after he came to the place in 1810. The iron work was founded by John L. Potts in 1848. The principal business (is) being building machinery for iron mills and this line of work the proprietor is well known in all iron producing states. When the plant operated full hand 100 men were employed, in urgent cases as many as 140 men were employed.	1848
Pottsville	John Pott	died intestate., Oct.23, 1827 and purpart No.2 of his estate was adjudged to William Pott one of his sons.	1827
"	Wm. Pott	Sold this entire tract to Charles Loeser who in latter part of the year laid out into lots in that part of Pottsville known as Rhoads Addition or Eastern addition Pottsville or our East Side.	1829
"	Chas.Loeser	sold to Daniel J. Rhoads and Geo. Shoemaker two lots corner Norwegian St. & George St. for $500.00	1830
	Simon Derr	finally after many years these lots became the property of Simon Derr. In the forties this land was marshy and anything but inviting.	1830-64
"	Wm.W.Brick	Wm. Brick of Phila. purchased a portion of this property and operated a parchment factory. Whether Mr. Brick established this business or was in existence when he purchased the property we do not know	1831
"	Wm.W.Brick and a Mr. Rothermel	Mr. Brick associated with him in business Mr. Rothermel	1833
		In some way Elias Derr became connected with the business. He continued the business and about same time operated a tannery.	1833-34
"	Derr	Mr. Elias Derr operated the tannery until April 19, 1848 when sold the property to Joseph Derr which time the Derr Tannery was discontinued.	1848

Town	Name	Description	Year
Pennsville	Charles F. Pettijohn	[illegible]	1964
"	Frank Tilton Funeral Co.		

Place	Names	Description	Date
Pt Carbon	Abr.Pott	Erected a saw mill in Black Valley, driven by a steam engine. This was the first steam engine set up north of Reading. Here Mr. A. Potts instituted a series of experiments for the utilization of anthracite fuel for the generation of steam. After two failures he succeeded perfectly with the grate he devised.	
	Ben.Haywood	A young English blacksmith settled in Port Carbon and soon had a flourishing business. In 1830 - he married. A girl from Reading had suggested he try Pottsville.	
"	Ben.Haywood Geo.W.Snyder	Put up a small eng. to operate lathe for turning car axles. Haywood business increased and it became clear to him that mining below water level required pumping and steam power. He went to Phila. and purchased a steam engine. The company sent a young man by the name of Geo. W. Snyder. This Snyder like the surrounding and decided to stay.	
	Haywood & Snyder	These two men formed a partnership the results the mechanical technic extending down to our present time. The company was called the Colliery Iron Co. and was designed to manufacture of steam engines and mining machinery. The first engine made in Schuylkill County was made here - The shops were located at Race and Coal Sts - where present Foundry of the P.&R.C.& I.Co. now stand and I believe these buildings are the same buildings.	
Pottsville	"	Built the blowing machinery for Pioneer Furnace Where experiments of making pig iron with anthracite coal was being carried and where it became the first commerical success.	
Pottsville Danville	Haywood & Snyder	Erected large foundry and shops at Danville there and at Pottsville constructed machinery for the Montour Iron Works of Danville at this place it is claimed the first set of rolls for making T rail was made.	
Pottsville	Mr.R. Allison	Mr. Allison became an apprentice in Haywood & Snyder Shops. Mr. Allison was sent to Danville to work at the branch shop. He called it the Montour Rollings and they turned out the first T rail in U.S. The mills were constructed under the supervision of Mr. Henry Brevoort of N. Y.	

Place	Name	Description	Date
Pittsville	Mobile Boiler Works	John J. Reid & Sons Mills started to the manufacture of boilers, in 1905 in the old Thunder on the Plains mills that stood from the corner of Second to 1914 when they built the boiler shops on Railroad Street opposite the Pacific Street	1905 1914
"	"	Peter T. Wolfe and Sons Mills discovered corrosion in their boilers to have it.	1907
"		John J. Reid continued to operate the business under the name of Reid Boiler Works for many years.	
"	Reid Boiler Works	Formerly superintendent of the Reid Iron Works bought land of the Pittsville Mills in 1905 and in connection with his brother John Reid started the Reid Boiler Works on Pacific Street manufacturing boilers, smoke stacks, ventilating stacks and also does a jobbing business with blacksmithing, machine work, etc. Employs about 25 men. Mr. Reid died in 1907 and his widow carried on the business under the name of Reid Boiler Works. In 1914 the plant was moved to the present location on Railroad Street opposite the Pacific Street shops.	1907 1914

Place	Names	Description	Date
Pottsville	Haywood & Snyder	Built the Blowing machinery for Pioneer Furnace, where the experiments of making pig iron with anthracite coal was first made a commercial success	1838-9
"	D.G.Yuengling	Established the Eagle Brewery 1873 -became D.G. Yuengling and Son.	1829
"		Orchard Brewing started -1886 moved to Mt Carbon	1830
Minersville	Wm.DeHaven	Established a Shop, first a blacksmith shop and car shop. A foundry and boiler works was soon added and shops enlarged. Some reference state DeHaven operated the plant until he died, other states he failed in 1858	1838 1858
	Gartley & Fox	Purchased the property. At first it was limited to machinery for collieries, but later was enlarged until it embraced a wide range in 1881 it did a business of 200,000 per year	1864
Pottsville	Wm.Lyman	Mfg. first time pig iron by use of Anthracite coal Pioneer Furnaces.	1839
"		Small foundry on corner of North George Street and East Norwegian Street. Previous to this date Elias	1836
	E.Derr Wm.Brick	Derr and William Brick operated a Tannery for producing Morocco leather.	1830
Pine Grove	Geo. N. Eckert Simon Guilferd	Started Swatara Forge was started as a Furnace. It was afterward converted to a forge	1830
Pine Grove		Laid Out. "	1830
Pine Grove	Tobias Richel	Erected a Forge	1810
Pine Grove	Peter Filbert	Purchase this property and erected a edge tool factory known as Tilt-Hammer Forge - sold it 1828	1819
Pine Grove	Jonathan Gerdel	First Tannery and conducted it until 1824 and sold it to Daniel Hain and subsequently purchased by Levi Miller who operated it.	1810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